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THE

MEDICAL MISSIONARY IN CHIN

A NARRATIVE OF

TWENTY YEARS' EXPERIENCE.

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BY

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OF THE LONDON MISSIONARY SOCIETY.

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PREFACE.

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THE object with which these pages have been written is to show that a medical missionary's work in a heathen land has a powerful influence in affecting the minds of the people among whom he may labour, and that such work is very valuable in giving facilities for the more direct preaching of the Gospel.

The experiment of medical missions has been fully tried in China, and the experience of many years has demonstrated that the agency has been successful, that the labour spent has not been in vain, and that the success of the past gives reason to hope for still better things for the future. Doubtless China has been a good field for the trial of medical missions, and I feel assured that were they entered upon also in India they would have the same beneficial tendency, and help the various missions to a great extent. It is true, that in India there are many military, as well as resident and civil surgeons, who have given freely of their talent and labour for the good of the natives, and it has been supposed that this met the case, but it probably does not to any great extent. The medical missionary

ought to be clearly identified with the mission station, so that it might be seen and known that the work is done as work for Christ; and if it be carried on efficiently, by a properly qualified man, it will not be without good result. I would say unhesitatingly, that whenever the work has failed in eliciting the goodwill and sympathy of the natives, it has resulted from the medical missionary not making his hospital his chief work, giving to it his most earnest strength, and doing his work with sufficient energy. It is for this reason I urgently advise that the medical missionary be strictly a layman, for as a layman he can do all teaching and preaching that he has opportunity and ability for; but he ought to have no responsibility as a pastor, or he will become distracted from his own line of operation, and thus be less willing to undergo the drudgery of his hospital; and without the continuous work and effort there, he cannot expect to have a wide influence.

Admitting most fully, as previously stated, the great good that all missionaries may do by the exercise of common sense in the use of a medicine chest, when no better aid is available, yet if the medical missionary is ordained, either a good surgeon or a good pastor is spoiled. I have seen this in Protestant and in Romish missions; a man attempts to follow two professions, and always fails signally in one, sometimes in both, and thus loses rather than gains influence and power for good.

In describing the work of the various medical mis-

sionaries who have engaged in this department of labour, the attempt has been made to give due prominence to each individual, and at the same time to make the history as continuous as possible. The cases quoted have been taken from a large number which have been reported from year to year at the different stations; the principle of selection has been to notice those in which the use of the hospital or dispensary has been a valuable aid to general mission work; or in which some characteristic trait of the Chinese mind may have been brought out and developed. The writer is well aware that there is little in the work of direct professional interest, and also that the remarks on the diseases of the climate have been necessarily disjointed and not in proper continuity; but while making the selections from the reports of the medical missionaries, it was judged best to attend chiefly to the history, and keep that in its integrity, allowing the remarks on disease, &c., to fall into their natural place in the account, rather than bring all professional remarks into one place, which would have broken the thread of the narrative. Thus it is hoped that his reference to the work at each station has been kept distinct, and the individuality of each missionary maintained.

Enough has been said to show that the object with which medical missionaries were sent out has been fully met, and that the wished for result has in large measure been attained.

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THE

MEDICAL MISSIONARY IN CHINA.

CHAPTER I.

CURIOSITY RESPECTING CHINA. — POLICY OF RUSSIA. — HER ACQUISITIONS OF CHINESE TERRITORY. — MARCH OF THE ENGLISH AND FRENCH ARMIES. — RESULTS OF THE CAPTURE OF PEKIN. — ADVANTAGES OF THE AUTHOR. — EDUCATION AMONG THE CHINESE. — SCHOOL. — PRIVATE TUTORS. — EXAMINATIONS. — DEGREES. — EMPLOYMENT OF LITERARY MEN. — MILITARY EDUCATION. — RELIGION.

THE important change that has just been effected in the relations of this country with China, and a knowledge of the stimulus it is likely to give to interests of the highest national consideration, have induced me to put forward a long experience of the habits, manners, and resources of the people of that enormous empire, acquired under circumstances peculiarly favourable for eliciting trustworthy information.

It is not necessary to remind the reader of the claims of this singular race to his consideration historically, or ethnologically—morally and politically they are no less powerful; and the bringing of so large a population within the chain of community that binds the civilised world,

marks an epoch that future ages must regard as one of the most suggestive in chronology.

From the era of Marco Polo and Sir John Mandeville, the curiosity of Europe has only been excited to be baffled. Despite of a library of books of travels, the "Central Flowery Land" has remained hermetically sealed against the inquisitive *Fanqui;* the influence of which, with some few exceptions, increased the appetite it attempted to satisfy. Elaborate descriptions of a portion of the littoral, and highly imaginative pictures of the interior, seemed all we were likely to obtain, till our recent warlike demonstrations threw open tracts hitherto unexplored, and our final march upon the great capital of the empire left the heart of the country exposed to our observation.

The Russian government anticipated us—not in a knowledge of the advantages of close commercial and political relations with an empire so enormous in its resources, but in the employment of those arguments that alone could render a vain and effeminate state sensible of their value. An adventurous artist* has lately, no less pleasantly than graphically, shown the strides which during the last twenty or thirty years have been taken between Siberia and Pekin; till the map of all the Russias, published at St. Petersburg, includes that vast portion of Central Asia, heretofore the outlying provinces of the Chinese Empire beyond the great wall. Having placed a mission in the Chinese capital, and organised an overwhelming army in Chinese Tartary with magazines of warlike resources, which

* T. W. Atkinson, author of "Oriental Siberia," and "Travels in the Regions of the Amoor."

it was impossible for any of the Tartar races to withstand, Russia easily secured a permanent footing in region after region, till she had dominated over, and then obtained the secession of, all the intervening space, leaving the conquest of the entire Chinese Empire to the time when it should please the reigning Czar to order his Cossacks to take possession.

It is impossible to state with any precision the amount of moral or material support that the Chinese emperor received from his imperial brother and formidable neighbour, which encouraged him to so obstinate a resistance to the demands of England and France: but a slight acquaintance with Russian policy must satisfy any one, that having established itself as a favoured nation, Russia could not regard with complacency any attempt made by another nation to share such advantages. The march of the British and French army, therefore, must have been regarded at St. Petersburg with unusual interest, and the total overthrow of the Tartar force, capture of Pekin, and flight of the emperor, not without anxiety. To assist in an arrangement that would send the conquerors away from their conquest was the part the Russian authorities might have been expected to play, and they played it with characteristic ability.

The treaty which has been signed between the belligerents has put an end to the exclusive right Russia had established, of such close attendance upon *this* sick man as might enable her promptly to profit by his demise. For equally attentive and equally skilful nurses are now in attendance, who may probably assist in establishing the patient's convalescence. There is, however,

the chapter of accidents for Russian policy to fall back upon, and it is one well known to be highly favourable to its development.

The Tartar government has been shamefully beaten by the Barbarian it used to treat with contempt. The Tartar Prince has been humiliated, the Tartar Commander-in-Chief, covered with shame—the Tartar army thoroughly disgraced in the estimation of the Chinese population — the Tartar Emperor outraged by the plunder and destruction of his summer palace. These are elements of discord, which, we may expect, will not be lost sight of, in the hands of a skilful rival, who has every inducement to try to turn them to his profit.

There is, however, another point of view from which the same circumstances may be regarded. Our Armstrong guns have taught even the impracticable Tartars a great moral lesson, and the conviction of the futility of all their energies in the way of defence must put a restraint upon their inclinations towards another quarrel. The signal and practical manner in which the barbarous murder of the prisoners they had treacherously taken was avenged, will doubtless be appreciated by the Tartar mind. Brutality is cheap, but its consequences may be made expensive — and as soon as this becomes a recognised fact, it is not likely to be resorted to.

The new position in which we have been placed as masters of the situation must have a beneficial effect upon the nation, and to make the most of it, we ought to render the advantages of our alliance and friendly communication clear to the Chinese people. Towards obtaining a knowledge of the various ways and means

by which this may be done, an experience of twenty years, that combined within its sphere of observation all the most interesting classes of society, may materially assist. Among the natives medical science is so imperfectly cultivated that reliance upon it is out of the question, and the foreign practitioner, who has given proofs of his skill in the treatment of disease, is treated with the highest degree of confidence and respect. The establishment of hospitals in the different cities on the coast frequented by our merchants — which will be fully detailed in subsequent chapters — is a boon the value and importance of which it is impossible for an educated Chinese to overlook; and the better classes of the population are anxious to share the benefits which those institutions confer on their poorer countrymen. In this way I found ready access to individuals possessed of more or less social influence; and my medical treatment having been successful, I was invariably treated as a benefactor and a friend. The absence of reserve, consequent upon the relation between physician and patient prevented that assumption of superiority which usually marked the demeanour of these Asiatics to strangers, and naturally promoted a practical acquaintance with their ordinary modes of thought and action. The result I place before the reader.

EDUCATION AMONGST THE CHINESE.

LITERARY EXAMINATIONS.

The Chinese are an educated people. They place a high value upon the attainments of the learned. Foreigners differ as to the amount of education of

the common people, yet a visitor to the streets of a Chinese city in the evening may usually see many of the working-classes, artisans, small shopkeepers, and even porters, sitting at their doors engaged with a book, or reading placards on the walls. Though they do not read fluently, they contrive to make out the meaning: there are very few who cannot do this. The people of a higher grade read and write with facility. Every one desires that his children may be taught, for which object, and if his means allow, he sends them to school.

The people are encouraged to this by the fact that government offices are open to the poorest if he cares to study, the rule being to confer such employment only upon those who have reached some educational standing. The purchase of office is in China quite exceptional, and the government discredits itself whenever it makes a sale of literary rank, in order that the buyer may possess the title of a learned character, or be eligible for some vacant post. The people despise him of whom they can say, "Oh! he bought his degree to get a place." Such a proceeding is looked upon as a prostitution of the privileges of the universities, and the emperor, who for the sake of the purchase-money permits it to be done, suffers in popular esteem.

The education, such as it is, which has prevailed amongst the people, has proved one of their national safeguards. China is the oldest empire in the world. She remains to this day a great and flourishing kingdom, having seen the rise and decay of Assyria, Egypt, and Greece and Rome. Education, and a feeling of

mutual responsibility, have kept the people and their government together. Dynasties have changed; the imperial families have changed; wars have affected their institutions; but the people are still one, living under the laws, and customs, and manners which have prevailed for centuries. And may it not be said, in addition to these binding influences, China shares the blessing of the "commandment with promise,"—"Honour thy father and thy mother; that thy days may be long in the land which the Lord thy God giveth thee?" Filial obedience is recognised as the foundation of their institutions, popular and governmental, and the principle is universally honoured in a manner which has no parallel in any other nation.

To this people the advantages of education readily offer themselves on all sides. To be educated, is amongst them the surest mark of respectability. The knowledge contained in their classics is, it is true, meagre in quality, and limited in its extent; yet it has developed the intellect of the student, and of the people generally. The examinations necessary to be passed through, in order to a position, have at least the effect of sharpening the mental energies; they increase the power of contemplation and consecutive thinking on subjects which may call for serious attention in the future life.

The schoolmaster is in every village. His office is reputed honourable, and frequently, men who have passed the preliminary examinations, but who being poor, or perhaps "sticket" scholars, go no further, open preparatory schools, and, if they have any tact in communicating knowledge, soon get pupils.

The women in the lower class are very seldom able

to read, though you sometimes will meet with exceptions to this. The girls in respectable families are taught this exercise, sometimes receiving a fair education, and attain to a good knowledge of the native literature. The boys of all ranks are sent early to school. They begin by learning separate characters, which are written on squares of red paper. These, with their proper sounds and tones, are drilled into them, day after day, until they know them thoroughly; the meaning of the characters is deferred to future lessons. The Three-Character Classic, with other easy books, is next commenced; the sounds and tones are again gone over assiduously, the pupil repeating line and page of his lesson again and again, of which also brief explanations are given to him. This is a somewhat dreary process, but in this way the characters, with their proper tone, are acquired, and some glimpse of their signification. This is followed by the Four Books of Confucius, which are gone through in a similar way, page after page being committed to memory, both of the text and the commentary. By means of this, and of the characters, which have now been thoroughly learned, the meaning of the language is sufficiently attained.

Chinese children are kept hard at work whilst at school. They take to their books kindly, because of the high value attached to study and education; and the quiet work suits their natural disposition. Lessons in writing are also given. The little fingers are trained to fashion the characters correctly, and to form the strokes with exactness, the true position of the strokes constituting the spelling of the characters.

From this first stage of education, the boy is sent to

a more accomplished master, who is probably a student preparing for examination, and who supports himself meantime by taking pupils, or by living with a family, where he teaches the children. In a wealthy family there is always a student, or scholar of this character, as it is looked upon as a very respectable thing to have as resident tutor a scholar who is passing creditably through his course. He is introduced to the family as a learned man, who has taken such and such a degree. With this tutor a similar process is gone through as before, only now more care is given to explanation of words and phrases; the pupil is led through the various classics, and prepares theses on separate passages from them, and when sufficiently advanced, proceeds to one of the local examinations, conducted by the magistrate of the district, who is assisted by local scholars of a certain rank. On the completion of this course, he passes on to the examinations of the department, and obtains a preliminary low rank. These two examinations may be compared to the matriculation pass in our own universities. Many of the candidates are not passed by the examiners; but those who are successful are commended by their friends, and have a little reputation amongst their compeers. No degree is given to these undergraduates, but they are honourably mentioned, and their names published.

Those who succeed in the second examination, may enrol their names for the third, which is conducted by the literary chancellor, at the provincial capital. This examination is very strict, and great care is taken that the students do not carry in books or papers, to help them in writing their answers. A theme is announced,

the student writing his thesis on the paper provided for him. The judgment of his ability rests upon the amount of learning which he displays, and his readiness in quoting the classics in exemplification of the different points of his subject. The handwriting and the correctness of the characters are closely observed. The student must not only write the ordinary character with accuracy, but must be aware of those characters which from various political or imperial motives have been changed. A character which he uses may, for example, be one that forms part of the emperor's name. This ought always to be denoted by the omission of a certain stroke. If the student show that he is ignorant of this, he is supposed not to be well read, and his thesis, however well written in all other respects, would be at once rejected. There is no *vivâ voce* examination; all is conducted by writing, and the papers, finished in a given time, are handed in to the examiners. These, having, as is supposed, thoroughly investigated the answers, determine upon those who are fit for the honour. The degree of Sew-tsae (adorned talent), or B. A., is then conferred.

The attainment of this degree is the great object of all students, only a portion of whom are successful. Lists of their names are posted outside the examination halls, and sent to the various cities of the province. Crowds of students, with their friends, wait anxiously for the appearance of these lists; copies of them are taken, and at once printed off, and hawkers go round the city, with a small yellow flag, announcing that their sheets contain the lists of names, especially the names of the native scholars who have honoured their city, and

the people eagerly buy up the whole stock. The students send messengers to their homes to tell the result, and there being no electric telegraph, as yet, in China, the message is sent by carrier pigeons, to the friends at a distance. I have frequently observed these expectant crowds around the magistrate's office at Shanghai, who have displayed an intense anxiety as the moment drew near when the lists would be made public. Most of the crowd would have some relative or friend amongst the candidates for the degree.

The holders of this literary distinction are at once the possessors of certain privileges. They are henceforward exempt from corporeal punishment; when one of them has business at the magistrate's office, and states that he is a Sew-tsae, the list is examined, and his statement being found correct, he is courteously treated, and is not allowed to remain amongst the common people. They take a prominent part in the presentation to the magistrates of any petitions, and their names attached give weight to the statements which they contain. The magistrates are constrained to listen with deference to the written wishes or representations of these graduates, who are the respectable members of the community, and their statements have more weight than those of the men of mere wealth. The people, also, ascribe great importance to whatever may be brought forward by these scholars; I have often heard the remark, that such a thing must be carefully attended to, because the graduates have taken it up. There is always a considerable number of them in every city.

Many are satisfied with the possession of this degree; but those who wish to advance to the next honour,

present themselves at the triennial examination in the provincial city. The literary chancellor and the highest magistrate of the department preside at this examination also, which is conducted before imperial commissioners appointed for the purpose. The degree that follows is that of Keu-jin, or elevated man, and is equivalent to our M.A. Those only who have passed the previous examinations can enter for this one, and the theory is, that this degree cannot be purchased, but is the reward of merit only. The examination takes place only once in three years, and although many are rejected at the previous examinations, yet as these are annual, the list of successful candidates for the Keu-jin degree is always large, being composed of students who assemble from all parts of the province.

The place of examination consists of a large enclosure filled with rows of cells, which are very small, and contain only a seat and a desk. The candidates take their places in these, and do not leave them until their work is done.* The themes for the day's examination are handed to them, at which they work, without hindrance, till they are finished. Special officers watch the cells to prevent communication from without and between the students themselves. The examination includes the classics, the laws of the country, its history, and rites and ceremonies, and is very severe. Original genius is not required so much as a facility in quotation

* After the taking of Canton by our troops, some two years ago, Dr. Legge, who took the opportunity of counting these cells in the enclosure (or university) of that city, found them to exceed 7,000.

of various books, and in argumentation of a certain style. Two entire days are devoted to this examination, and so exhausting is the labour, that many candidates are prostrated, and several have been known to die in their cells. The fatigue at the time is severe; but in addition, days and weeks previously have been spent in hard, uninterrupted study.

Many Sew-tsaes are rejected, and some lose even their former degree: those who are simply rejected must wait three years for the next examination, and frequently men well advanced in years, fifty or sixty years old, present themselves. An instance is known of an old man of eighty years going up to be examined. He might not perhaps have gone through the hardships of the two days' labour, but the degree was bestowed as an honorary distinction.

A month having elapsed for the scrutiny of the papers, the declaration of the successful candidates is published. This is waited for by crowds, in intense anxiety, and much greater excitement than on the former occasion. This is a more honourable degree, and these Keu-jin are received by the high officers, civil and literary, who strive to do them honour. The provincial city is greatly excited on the important day, and the inhabitants eagerly wait for the information that is to be published. The means before mentioned are adopted to send the intelligence as speedily as possible in all directions.

The Keu-jin, returning to his native place, enters the town in state, being escorted to his father's residence or his own; the magistrates wait upon him in high ceremonial, the wealthy make him presents, his friends

flock round him to congratulate and give him money, the people send rolls of paper properly perfumed, on which he is requested to write a few characters and sign his name, and for this autograph gifts are made. Honour is paid to his parents, who are publicly thanked for producing a son of such talent, and he also is *fêted* and thanked by a grateful community for the honour he has conferred upon his native place. I called on one occasion at a very humble house in Shanghai, where I was told a newly-elected Keu-jin lived; he had just been conveyed to the magistrate's office to grace a feast given in his honour. His father, meanwhile, received the guests who called with their congratula tions, and strove who should most exalt the ability of the son; the old man, with quiet dignity, accepting their adulations. The enthusiasm thus displayed explained in great degree the eagerness to obtain literary distinction. The possession of this degree, moreover, is a fortune to a man; he is now eligible for office in the government, and generally obtains it. Should he choose not to enter official life, he may always secure a very respectable living as a teacher in a wealthy family, who delight to have such a man as the educator of their children. He is also much employed in the preparation of various documents, for which he receives large fees, and in the composition of odes on different subjects, which are treasured by the purchasers. People of all ranks seek to honour the man who has added another name to the roll of distinguished literati of the district.

The next trial is for the third degree of Tsin-sze, or advanced scholar, equivalent to our LL.D. This examination is held every three years at Pekin, and

is not very dissimilar to the last. It is conducted by examiners of higher rank, amid much of pomp and circumstance. At this many of the Keu-jin are rejected. The successful candidates are presented to the emperor, and pay him allegiance, and are sure of appointment to high offices in the government. The first vacancies are filled by them, and they are enriched in various ways; great honour is accorded to them, and their literary rank is a passport as well to fortune as to fame. The Keu-jin was honoured in his province, the Tsin-sze is honoured throughout the empire, and wherever he goes the people flock to see him, and show him respect and consideration.

Again, every three years, comes the examination for the Han-lin degree. This is "the forest of pencils," and may be expressed by the title of Literary Chancellor. Successful competitors become members of the Imperial Academy, and receive salaries. This is the highest literary degree, and for it the examination takes place in the Emperor's palace. It is similar in kind to the last two examinations, but is conducted by the literati, and others of the highest rank, and is therefore more honourable. They who are selected for the Han-lin, are men of high attainments, and are much employed; many in official positions at Pekin, and others in conducting the examinations, through the country. I have had opportunity of hearing from some of them of the arduous nature of their duties, in the last named of these employments. Some time ago, two of these gentlemen came from different places, at a distance, to put themselves under my professional care. They had both been seized with paralysis while engaged

in the examinations, and said the work was so laborious, that they had no rest for several days and nights. They were utterly prostrated, and when taken sick, had of course to leave their work unfinished. In my hospital report for 1857, the following statement occurs respecting these persons: "Two gentlemen, of the rank of Han-lin, or Literary Chancellor, one from Hang-chau, the other from the province of Hu-pih, applied to the hospital during the past year, being afflicted with partial paralysis. They both attributed the origin of the disease to the severe long-continued mental exertion required at the examination for the Keu-jin degree, which they superintended. They said the work of examining the literary essays of the candidates was so great that many of the Chancellors failed utterly under the labour, and, in their own case, they were compelled to throw up their office before the examinations were finished. Many of the candidates also fail during the trial from the labour of composition, and numbers of them have at various times been seen completely broken down in health, and rendered useless for life from cerebral disease, caused by their exertions to complete their essays. The examinations for the Keu-jin degree are much more difficult than for any other; and the success of the essays depends not so much on the genius of the writer, or his power of original composition, as on the strength of memory displayed by him in the use of classic allusions, and his skill in adapting them to the illustration of his composition. Perhaps no faculty of the mind wearies the body more, or is more exhaustive, than that of memory; the strain on which at these examinations is excessive. As the obtaining degrees

by examination is the stepping-stone to official appointments, many students work for these degrees with great assiduity, and the effort of memory, as above stated, in their quotations from the classics is something wonderful. Thus examiners and candidates suffer alike in their eager pursuit of fame."

In addition to individual labour on the part of the examiners, the officers, literary and civil, are responsible for the behaviour of the students during the examination, and accordingly deal with them in a becoming manner. Very frequently, on account of some harsh treatment, the students have thrown aside their papers, left the hall in a body, and sometimes committed acts of violence. Some of them may be punished for this outbreak, but the entire blame is cast upon the examiners, who are charged with the disgrace of having offended the candidates, and are consequently degraded from their appointments. The possibility of such a calamity restrains the despotism which accompanies authority, literary as well as civil, in China, in which country even, as is seen in this instance, the popular voice will, on occasion, make itself heard.

It is the policy of the government to stand well with the literati for the sake of their great influence with the common people, who look to them for opinions and advice. The approval of the scholars of the district, of any project in hand, or to be proposed, is the best recommendation it can have to the favour of the authorities.

In procuring degrees, and in obtaining official employment, bribery and favouritism have their influence in China, as in Western countries. Chancellors, and

other examiners, have not seldom been convicted of receiving money-bribes, for which they have been severely punished. They have been degraded from their office, and occasionally, even put to death. Bribery occurs most commonly at the examination for the Sew-tsae, at which it is easier to approve of deficient examination papers, and not so dangerous to sell the diploma, or certificate of the degree, which is at times known to be done. These practices have prevailed to such an extent at different periods that the examinations of certain years are spoken of by the people as remarkable for these evils. Still, the degrees are much sought after by crowds of students, who present themselves for examination every year. The education and the love of learning thus diffused have a most salutary influence upon the people, the effects of which cannot be too highly extolled. Even when individuals who have reached the position of scholars are disappointed in their hope of employment under government, they are, notwithstanding, held in esteem, and have abundant opportunity of adding to their reputation, and also to their means. They are employed in the drawing up of letters, petitions, memorials, and official documents, and as teachers in families, as has been already stated. Some of them take profitably to "coaching" students preparing for the examinations; others become secretaries to the higher officers, who must have a staff of educated men to draw up despatches and reports, which have all to be written in a good style, requiring practised ability. These secretaries are well paid, and receive, besides their salary, large fees; their emoluments are, in some cases, as large as those of their

employers. Other literary men engage themselves as public notaries, writers and arrangers of legal processes; all civil pleas before the magistrates are in writing, and sometimes of extraordinary length. The defence of a case was once given to me—it was several yards in length, on sheets of the usual Chinese writing-paper, which were pasted together, and all covered with the representation of the case. The compilation of these documents will sometimes require the engagement of several of the learned body.

The course of study, and the examinations which have thus been spoken of, refer only to the degrees required for the civil service in China. Whether obtained honourably by examination, or otherwise, a literary degree must be possessed before any one can enter upon official life. The officers of government are supposed to be persons of learning, and are respected accordingly. The competitive examinations instituted in England before the civil service commissioners, are to a great extent, as to the manner of them, an imitation of the system which has been followed in China for ages. It may be hoped that, at least, similar and equal benefits will follow.

The appointments bestowed upon the graduates are of much more value in the popular esteem, than the corresponding appointments in the military profession. A civil officer "with a blue button" ranks higher than a military officer who has the same decoration. It is said, "Such a person has a blue button," and the answer will be, "Oh! he is only a military officer;" a detraction of his rank which he would not suffer were he in the civil service.

The examinations necessary for appointments in the

army are of a much lower order than those above detailed, and consist chiefly in the exhibition of physical strength and prowess. These are shown in the drawing a ponderous beam of hard wood, lifting heavy weights, throwing large stones to a distance, and similar muscular efforts; and then shooting at a target with bow and arrow; sword exercise, with one or two weapons; firing with the matchlock and the gingall (a weapon similar to a duck-gun, but throwing an ounce ball: this is the most effective weapon of the Chinese soldier), and other such exercises which call forth the marksman's skill. I have seen the candidates practising many of these exercises in the presence of the commandant of the garrison at Shanghai, and noticed the aptitude and strength displayed by several amongst them. They have also to show their skill in manœuvering large bodies of men in the field; but the knowledge required on this point is more theoretical than practical.

Candidates who have been approved are drafted into the military or naval service as required. There is nothing incongruous felt in the appointment of the general of an army to the post of admiral of the fleet—and the men are transferred, as occasion demands, in like manner. From all I have seen of Chinese troops, I believe the brigade of gingall shooters to be the most effective part of them. Great pains are taken in the selection of officers and men for this brigade, and their firing at a mark is carefully attended to, so that they acquit themselves very creditably. These guns have a longer range than the ordinary matchlock; and from my experience of wounds caused by gun-shot, in action with soldiers on land, or with pirates, who abound near

the port of Shanghai—by far the larger proportion were from balls thrown by this weapon.

It is not my purpose, however, to enlarge upon military training in China, and this reference to the subject will suffice to show that education, as necessary for the performance of the duties of life, is recognised amongst all orders and ranks of the people. Before leaving the subject, I may instance an old teacher of the late Dr. Medhurst's, as showing the *kind* of education which is acquired by means of the examinations and studies that have been noticed. He was sixty-five years of age at the time referred to. A long time previously he had taken the first degree (Sew-tsae), but poverty had prevented his proceeding to the higher examinations. For many years he had been engaged as a schoolmaster and private tutor, and was now with Dr. Medhurst as his Chinese teacher. The doctor, with other missionaries, was at this time occupied on the translation of the Scriptures. This old man always sat at the translation table along with other native scholars who assisted in the important work. When the exact force and meaning of a Chinese character or word, as used in native works of acknowledged standing, was required, the question would be referred to him. After thinking a little, he would go to the shelves which contained the Chinese classics and the commentaries, along with many other works of poetry and history, and in a few minutes return with book after book in which he would produce a large number of passages where the word occurred and was illustrated. His services in this respect were invaluable, and made him a great help in the translation. He died of fever

before the work was finished. He is mentioned, however, as an instance of the education of the memory which is required amongst Chinese scholars. He was a living concordance of the entire range of Chinese literature. He could find any passage without hesitation, repeat page after page of most of the works, and could easily take up any citation which had been begun in his hearing, and finish it without hesitation. This is not an uncommon thing amongst the educated Chinese, but this man possessed the facility in a remarkable degree.

After all, perhaps, in the amount of civilisation they have attained to, the Chinese have reaped the fruits of an education which is merely secular in its character and its aims. In seeking to enlarge the horizon of their knowledge, and to raise them to a higher platform amongst their fellow-men, we wish not to change their educational habits, but to introduce an entirely new element into their system—an element which would revolutionise their modes of thought and feeling, change their darkness into light, their error into truth, and be followed by a perennial harvest of blessing amongst the entire people.

The Word of God alone will do this; and when once that Book finds a place in the schools of China, when the people read its truths as they now read their own classics, and inculcate its precepts as diligently as the precepts of their sages, and when above all, renouncing, under the influence of Divine teaching, the error and darkness of their philosophic heathenism, they advance to the light and liberty of the gospel of our Lord Jesus Christ, their education in its character, its system, and its results will be complete.

CHAP. II.

BENEVOLENT INSTITUTIONS IN SHANGHAI. — THE SHE-E-KUNG-KEUH. — THE TUNG-JIN-TANG. — FOUNDLING HOSPITAL. — THE KEW-TING-KEUH. — PUNISHMENTS AND PRISONS. — CRIMINALS. — PIRATES. — EXECUTIONS. — SANITARY ARRANGEMENTS. — CHOLERA.

Of these there are several in the city of Shanghai, and supported by public subscriptions. The latest of them, the She-e-kung-keuh, or "establishment for gratuitous medical relief," was commenced in 1845, the year after the opening of the Mission Hospital, for the reason that a similar step had been taken "by a foreigner who had come to reside at the place, and therefore some of the wealthy citizens wished to show their benevolent feeling in the same way." It is said that in every Fu, or departmental city, there is an institution of this kind; but the extent of their operation is probably not so great as, in this instance, at Shanghai, which, though only a Hëen, or district city, has been thus favoured for the reason already named.

This dispensary was attended by eight or nine native practitioners, some of whom gave their services, the remainder being paid out of the funds of the charity. The patients, of whom the number varied from 300 to 500, were of all classes, and were seen and prescribed for in the large halls of the establishment, which are admirably adapted for the purpose. The medicines were supplied by the different apothecaries' shops in the city

in rotation, one shop dispensing the medicines required on one day. The medicines are paid for by a fund specially subscribed for. The institution spent a portion of its funds in buying a large stock of the pills, bolusses, and powders, and also of the plasters spread on cotton cloth and paper, which are most commonly used by the Chinese for trifling ailments. These things were placed under the care of a resident clerk who knew a little of medicine, and who supplied them gratuitously to all applicants. At certain seasons, as the spring and autumn, cooling powders to prevent the possible occurrence of disease at the change of the seasons, as were given away in large quantities. The dispensary was kept open for not more than three months at one time, owing to the unwillingness of the medical attendants to bestow a longer attendance, but it was kept in operation for several successive years. This laudable attempt to follow the example afforded by the Mission Hospital was very pleasing to witness. The undertaking was conducted with spirit and energy, and had the medical men been better informed in the principles of the healing art, a yet larger amount of benefit would have been realised by the numerous patients. The attention paid to them, which I often witnessed on the prescribing days, and the interest in their welfare on the part of the physicians, were very commendable.

The demands on the hospital were not at all diminished by the opening of this native dispensary. The patients at the former came mostly from a distance, and their cases were generally of a more serious character than those which were undertaken by the native practitioner.

The Tung-jin-tang, or "Hall of United Benevolence," has its office in the city, where the committee and managers meet for the transaction of business. It has also a large cemetery where the poor are buried, just outside the south gate, and where, under certain restrictions, coffins are given to such as are not able to buy them for their deceased relatives. This institution also supplies coffins on credit, a certain sum being charged when the article is supplied, and the price of the coffin paid in monthly instalments. The honour of the parties is found to be a sufficient guarantee for the payment.

Money is distributed monthly by the officers to the poor, especially to widows with families. There is also a hospital, or alms-house, outside the north gate, for the aged and infirm who have no relatives to maintain them, and who are received on the recommendation of the subscribers to the institution.

The "Foundling Hospital" is another benevolent establishment at Shanghai, supported by subscriptions. It receives all the children who are sent to its protection and care. These are placed by their relatives in a sliding drawer in the wall near the front gate, and a bamboo drum is struck to give notice to the gatekeeper, who opens the drawer from the inside of the wall and transfers the little one to the care of the matron. Some of the children are sent out to nurse, others are kept in the hospital under the charge of wet-nurses who are hired for the purpose. Each of these women has two children to care for, and when she cannot afford them sufficient nourishment, she feeds them with flour and water, a supply of which is kept in readiness and given

to the nurses every day. The establishment seems to be tolerably well conducted; the rooms are cleaner than is generally the case with Chinese apartments. The children appear well fed, and the nurses are healthy and strong-looking women. All the children, moreover, are under the medical charge of a resident physician, supposed to be skilled in the diseases of children, and who acts as one of the secretaries to the institution. An annual report is published, from which I learned that in 1841 the numbers were: —

	1841.	1842.
Children remaining from former year	22	35
Received at the gate in the current year	114	51
Received from Sung-kiang-fu	34	
Sent out	58	26
Died	78	58
Remaining on the books	35	42

Many of the children are suffering from disease when they are received, and die in three or four days afterwards; and, according to the report, more than half the deaths take place thus early; but even after this deduction, the rate of mortality in the establishment is still excessive.

As the children grow up they are taken by various families to be brought up as domestics or artificers of various kinds, or in other instances adopted as children; the boys as heirs where there are no sons, the girls as the future wives of the sons or grandsons of the family. In the latter case, the object is that the wife, knowing no other tie than the family of her husband by whom she has been entirely trained, may continue entirely dependent upon them. This plan is said to work well in the majority of cases. Misconduct on

the part of the girl is punished by the cancelling of the engagement, when she would be degraded to the rank of a servant. The law recognising the punishment, it could not be evaded.

The Humane Society, or Kew-ting-keuh (establishment for saving life), is situated on the bank of the river, outside the great east gate of the city. Its object is sufficiently expressed by its name. When persons fall overboard from the junks in the river, boats are sent to rescue them. The bodies which are picked up are taken to the institution, where efforts are at once made to restore life; but from the report it would seem to be the chief duty of the superintendent to provide coffins. This also is done at the expense of the society, which, like the Tung-jin-tang, is supported by public subscriptions. One of the plans for restoring suspended animation is to place the patient on his back, and then to invert a large iron boiler (commonly used for cooking rice) over the abdomen. This, they say, "because of the connection between the empty space and the distended abdomen of the patient, causes the ejection of the water by the nose." Another plan is "to suspend the patient by the feet from the shoulders of a man standing erect, at the same time stopping the anus by a tossil of cotton to prevent the evacuation of the bowels, which would be fatal. This will soon be followed by the flowing of water from the mouth, and the patient's life will thus be spared." This institution does not seem to be carried on with much vigour, and the applications for aid are not numerous. The list for the year included not more than thirty or forty cases of those who had been saved and those who had been buried.

The following Report of the dispensary previously mentioned is not without its interest: —

"*Report of the public dispensary attached to the Poo-yuen-tang, or Assisting Hall at Shanghai, for the 25th year of Taou-kwong* (*or* 1845).

"That part of the country called San-woo-he (anciently denominated the kingdom of Woo, and now corresponding to the province of Kiang-nan) is very damp, and that portion of it which lies near the sea is salt, and still more damp than the interior; and in the summer and autumn is much exposed to strong winds. In the Hwang-pu and Wu-sung rivers there are the day and night tides, but in the brooks and streams which join them, there being no ebb and flow of the tide, the water is still and stagnant, and acquires a greenish colour and a brackish taste; the water of the wells is also affected in a similar manner, and as regards the people who live in these regions, the dampness moistens them, the wind shrivels them, the stagnant water soaks them, and they are thus rendered liable to disease.

"On the cotton lands, if while the cotton plants are growing up they be choked by weeds they will not thrive; therefore, after the rains during the fifth and sixth months, the labourers immediately leave their houses, and putting on their bamboo-leaf hats, and taking up their hoes, proceed to labour; and though midday may have passed, and the heat be intense, they do not stop till their work of clearing out the weeds is completed. Hence, during the summer and autumn months, much sickness prevails among the people. Those who have the means of doing so call in a physician to cure the indisposition, and it is thus of little consequence; but if the poor and destitute be exposed to these pernicious influences, and become sick, they are unable to procure medical aid, and their diseases speedily become severe.

"This state of things, having come to the knowledge of

several benevolent individuals, has excited their compassion and sympathy. At Shanghai, several gentlemen have established the Tung-jin-tang, which has now been established for many years; attached to it is an institution called the Poo-yuen-tang, whose object is to supply coffins on credit; in addition to this a public dispensary has lately been established, and the rules determined upon. The institution was opened on the 18th day of the 5th month, and was closed on the 18th day of the 8th month; during this time more than 10,000 persons were attended to, all which has been clearly specified. Now, it is far more praiseworthy and meritorious to attend to persons while they are alive, than to afford coffins for them when they are dead; if, therefore, the gentry would unremittingly do this, they would be the means of assisting the poor, and supporting the destitute; and thus, by virtuous intentions and good plans, the people of this city would be enabled to attain to old age. These benefits will not be confined to Shanghai alone, but all persons having compassionate hearts, hearing of your good deeds, will they not at once try to follow your example? He who first established the dispensary was Wang-Kwei; those who carried on the work after him were Choo-tsang-ling, Shin-kwan, and others.

> "Signed by Shin-ping-yuen, of Tung-keang, an Imperial Officer, and Fung-chin Ta-fu, Sub-prefect of the Coastguard for the district of Sung-kiang, and Joint Examiner for the degree of Keujin or Master of Arts, in the province of Kiang-nan."

In February, 1849, was admitted to the hospital a man about twenty-seven years of age, who was suffering from the effects of a severe punishment. He had been most barbarously beaten by order of the Chinese officers, to the extent of one hundred blows with the smaller bamboo, on the thigh and leg of the right side.

Mortification of the limb had made considerable progress, which was followed by extreme exhaustion, and he died during the night after his admission. He was a strong, robust man, of the working class, and had been in perfect health up to the time of his punishment. The blows had been inflicted with the utmost severity with the edge of the flat bamboo, commonly used; and the parts struck had been so mangled, that gangrene at once supervened.

There are two bamboos, a larger and a smaller, in use on these occasions of punishment. They are made from a section of a large bamboo, about three and a half inches wide, and five feet long; are flattened by having the joints smoothed down, and the whole instrument is made thick or thin as may be required. The law permits only forty blows at one time, with the larger; but if the officers are disposed to punish a prisoner severely with the smaller instrument, the blows are given with considerable force, and even with the bamboo held edgewise. Such is the agonising pain of this treatment, and the injury inflicted, that one hundred blows frequently cause death.

In the many cases of those who have come to the hospital after punishment at the magistrate's, a large slough of skin and flesh has had to be removed, often to the exposing of the muscles of the parts injured. This treatment often follows upon very trivial offences, the amount of the punishment being regulated less by the crime, than by the fee which the offender is disposed to pay, while suffering the bastinado. In front of the magistrate's office prisoners may be often seen whose faces have been shockingly torn by blows from

a piece of hard leather, like a shoe sole. The lower jaw is occasionally broken, and death sometimes caused by the excessive swelling of the neck resulting from this punishment. Amongst several men who were thus exposed to public view, was one whose face was much injured, and his lips severely cut against his front teeth, which were broken by the force of the blows. The man had fallen down in a state of syncope. One day a woman was convicted of speaking falsely in her evidence at the magistrate's office, and was ordered to be beaten on the mouth with the leathern flap which was neither so hard nor so heavy as the above. After several sharp blows, as she persisted in her false witness, she was again beaten, and then expelled from the office.

Great criminals, burglars, pirates, and such like offenders, are often cruelly dealt with. Though the magistrate may not authorise their decapitation, he can inflict a severe torture, sometimes fatal in its effect. After the criminal has been beaten, he is tied to a low cross with arms extended, and kneeling on a *coiled chain*, a torture, the agony of which is inconceivable. He remains in this position, and sometimes in the sun, for hours. Exhaustion and death frequently follow in a few days; and when this is not the case, and death does not relieve the victim while under the torture, he will be paralysed or crippled for the rest of his life.

A plan adopted in the magistrate's office to extort money or evidence from persons of respectable position is this: A few short, thin bamboos are tied at one end, then separated at the free end; the fingers are placed between, and the bamboo rods are drawn more or less

tight by a string round them, until the man screams with pain, and will give his money or his evidence according to demand.

In the summer of 1853, occasion was taken to visit the prison of the city, the people having stated that there was a number of men who had been severely wounded in the Che-hëen, or magistrate's jail. It was ascertained that in a yard, a department of the inner prison, about fifty pirates, all Canton or Fuh-këen men, had been confined. On the morning they were visited they had been very riotous, endeavouring to break from prison, because they were threatened by the officers with additional hardships, and with being separated from each other. The soldiers of the garrison who had been called out, fired several rounds of musketry into the yard and the prisoners' cells, till the rioters were quiet, or disabled, and then rushed in and beat them for some time with heavy poles. Afterwards, all the prisoners were loaded with extra manacles, and those of them, not severely wounded, were forthwith bastinadoed till they could hardly walk. The scene in the yard and the cells was perhaps common in Chinese prisons, yet, it is hoped, peculiar to them.

Four men had been killed, and lay at the door in a heap, just as they had been thrown down. Of the rest, one had compound fracture of the thigh, three had compound fracture of the tibia, the result of gun shot, others had fractures of the legs and arms, from the blows after the firing had ceased, several had severe sword cuts, and others had bullet wounds in various parts of the body and limbs; about twenty being wounded in the affray. The remainder had the skin

beaten off their backs, thighs, and legs, by the bastinado, and the moans from all parts of the yard were heart-rending. The men with the compound fractures had chains on their hands, and bars of wood chained to the feet. In addition, there was a band or oval hasp of iron placed over the knee, the leg being flexed on the thigh; to keep this in its place an iron rod was thrust through the middle of the hasp at the ham, and locked so that it could not be removed; the forcible bending of the knee in this manner causing much agony to the wretched prisoners.

As far as time (it was approaching dusk) and place would permit, all that could be done for the sufferers was effected; bullets were cut out, wounds dressed, fractured limbs bound up and put in position. The next day, bandages, splints, ointments, and whatever else was required, were supplied. Applications to the officers to cause the removal of the hoops and chains from the fractured limbs, were refused; and when at a later period the request was more urgently pressed, they persisted in their refusal, adding, that "they hoped the men would all die, and the sooner the better; and that they wished no relief of any kind to be afforded them." The pirates themselves were thankful for the help which was given, and were kind and helpful to one another. One man whose leg had been fractured, had a pair of manacles that were too small for him placed on his wrists. Great swelling of the hands and fore-arm followed, till at last the handcuffs were buried in the flesh, and the bones exposed. The handcuffs were then filed through and removed, greatly to the dissatisfaction of the jail-keeper.

The communication with the prisoners was maintained through one of themselves, an intelligent young man, who spoke English fluently. He had been beaten on the thighs, and had logs of wood attached to his legs, and was not able to walk. Lifted to the back of another, whose hands only were fettered, he was carried from cell to cell to receive instructions, and give directions as to what was to be done between the visits: the men being from the southern provinces, did not understand the language of the north. The dead bodies spoken of, to which two others were afterwards added, remained in an outer cell for more than a week, covered with ice to prevent putrefaction, until the affair had been investigated, and reported to the superior officers. Several of those who had been severely wounded died, and in time the rest recovered, after a rather large consumption of plasters and bandages.

Upon the capture of the city in the autumn by the Triads, these pirates broke loose, and the first man they killed was the magistrate who had them in charge. The young man just alluded to, was found one day in command of a detachment of Triads, keeping the little east gate, wearing a sword, and dressed in velvet and satin; he showed a different appearance from when he was loaded with chains, and covered with rags in the prison. He recognised me, and thanked me for what had been done for him; and showed many acts of kindness to destitute persons in the city, releasing some of our converts who were anxious to leave the place. A few years afterwards, when I was at Hong-kong on my way to England, I accompanied the Rev. Dr. Legge in one of his religious services to the Chinese prisoners in

the common jail. Amongst the crowd of listeners in the large room was a face I recognised, and after some time remembered the owner as the young man who had come under my notice at Shanghai, but he was not willing to recall the circumstance, nor admit having seen me before. He was now one of a band of pirates who had been captured at sea, and were awaiting trial. The circumstance was an unusual one, to have seen the same man in such very different positions. He had fled from Shanghai with the leaders of the Triad rebels, and failing employment, had turned to piracy, and was now [redacted]aping the reward of his misdeeds. I did not learn [redacted]hat became of him; he would doubtless either be [redacted]nsported, or given up to the Chinese authorities.

When at Canton, February 26th, 1839, I witnessed [redacted]he execution of the Chinese, which was followed by [redacted]uch important consequences. An execution had been [redacted]ttempted on the same spot two months previously, but [redacted]ad been prevented by the interference of the foreign-[redacted]rs. This second attempt was successful. The time [redacted]hosen was the hour, about 5 P.M., at which the [redacted]reigners were absent walking, or on the river. Walking with a friend up and down the flags in front of the [redacted]ctories, we were struck by the appearance on a sudden of a file of Chinese soldiers, coming from one of [redacted]e streets leading to the river front, and in the midst of them a man, who was carried in a basket, evidently to execution. An upright pole which they had brought for the purpose, was instantly lashed to a post in the factory ground, and through a hole in the upper end a cross bar was placed. To the cross thus formed the man was tied, with his feet on the ground, and a cord

which was coiled round his neck and the top of the pole was drawn tight by a man at each end of the cord, and the man was dead. So quickly was the thing done, that remonstrance from the foreigners—some of whom had almost immediately joined my friend and myself—was too late: The soldiers proposed to leave the body where it was, but as its removal was insisted on, they removed it to the basket, and went back to the city.

It was afterwards represented that the man had been an opium smuggler; but it was clearly proved that he was a poor fellow to whose friends the officers h paid a sum of money that he might be executed. he was a consenting party the money was paid, a he was put to death. The real purpose of the tran action was to insult foreigners by a pretended displa of the imperial displeasure against dealing in opium and making it appear that foreigners, by trading in th drug, caused the death of the natives. The man bein purchased for the purpose of execution made it a me tragical farce. Captain Elliott remonstrated warml against the affair, but, as in all other cases where r monstrance is all, the Chinese officers laughed at t remonstrants, and aggravated the original outrages b their sneers. This circumstance occurred four or fi days prior to the arrival of Commissioner Lin at Ca ton, and was the initiative of the proceedings that le to the war, which was closed by the treaty of Nanking in 1842.

The average of public health in the city of Shanghai, which may be taken as a type of Chinese cities, has often been to foreigners, especially during the summer

months, a matter of surprise. The great heat of that season; the crowding of the people in the narrow streets, and of several families frequently in the same house; the absence of police regulations for the cleansing of the city and the canals, public scavengers of any kind being unknown; would seem to ensure a larger amount of disease than is found to exist amongst the population.

The sewerage is, moreover, of the most imperfect kind. The drains are no better than a continuous cesspool, where filth of all varieties is allowed to accumulate and pollute the air. In truth, were it not that the high market value of ordure of all kinds leads to the employment of a large number of men and boats in its deportation to the country for agricultural purposes, the health of the city would be seriously deteriorated. Ordinarily, however, the nasal organs of the Chinese seem wanting in sensitiveness; for while the foreigner is almost prostrated by the offensive odours which assail him on every side in a Chinese city, the natives care little for them either at home or abroad. Still, notwithstanding circumstances which are commonly detrimental to health, the inhabitants enjoy a good share of bodily vigour, and in many instances attain a ripe old age. Epidemics of cholera have visited China occasionally, but, beyond a few cases during the summer months, it has not come under my observation in that country.

In the months of May, June, and July, 1849, a form of petechial fever was fatal to a large number of the people of the city. Shanghai, like many other cities in the level parts of the country, is traversed by nume-

rous canals, which are cut for the purpose of traffic. The tide rises freely in all the trunk canals, but is prevented flowing through the branches, which are obstructed, and in course of time blocked up by the filth which is constantly being thrown into them. In the spring of the year the magistrate ordered the thorough cleansing of the whole range of canals, so that the tide might reach them all, for the convenience of trade, and for the sake of cleanliness. In doing this, however, the mud from the canals was thrown on the bank that lines the city wall, and also gathered into heaps in various parts of the city, occasioning a stench almost intolerable. Had a plan been desired by which to make a district unhealthy, and a premium offered for the most likely method, perhaps none could have been devised more likely to be prejudicial, or better adapted to the production of wide-spread disease. The appearance at this time of a virulent form of low typhus, or rather petechial fever, could not be wondered at. The attack was fatal to very many, and during the epidemic numerous funerals were met in the streets daily, and the great majority of the people were clad in mourning.

From the beginning of the attack the patient was much prostrated; the skin burning hot; the pulse quick and feeble, with extreme pain in the head, accompanied by frequent vomiting, and in the worst cases, by excessive diarrhœa or dysentery. The petechiæ appeared on the third or fourth day, the body being covered with the purple spots or patches, and when these came out freely, there was thought to be less danger as to the issue of the attack. Where the

attack proved fatal, death occurred generally on the seventh or tenth day. In the other cases the patients had a long and tedious convalescence, and suffered much from extreme debility. Emetics in the first instance, with attention to local symptoms; the exhibition of camphor and nitre, with the early and free use of quinine, appeared to be the best mode of treating the disease.

Cholera occasionally presented itself; the symptoms resembling those observed in Europe. According to native accounts, there are epidemic visitations of this fearful pestilence, causing great mortality, and inspiring great dread of its approach. Such an epidemic must make sad havoc in the narrow lanes and streets so densely crowded of a Chinese city. Committees of health in England can do much in the cleansing streets, opening avenues for the admission of pure air, and in other ways, to increase the salubrity of towns; but the state of the cities in China sets all such attempts at defiance. Perhaps, were it not for the abundant use of the fan, so common amongst them, even the Chinese might not be able to live in their crowded streets through the severe summer heat. To deprive them of their fans would be, while it lasted, a more trying punishment than to take away their food. Without the fan they would be utterly miserable; and its constant use tends much to the comfort, and therefore to the health of the people. They use the fan, not as Europeans in a quick and hurried way, which requires some exertion and soon wearies, but with a quiet uninterrupted motion, which, while dispersing

the heated air and serving the purpose of a refrigerator, causes no fatigue.

Such being the condition of a Chinese city, dyspepsia in various forms might be expected; the wonder is, that in a country where in summer the thermometer ranges from 80° to 100°, and the personal and domestic habits of the people are so prejudicial to health, that disease is not far more common and fatal. It is remarked in the hospital report for 1856, that if violent epidemic fevers were to devastate the place it could hardly excite surprise. The canals, in part only, are cleansed twice a month by the spring tides; but whenever the water thus rises it is carried to all the houses in the city for domestic uses. This water is surcharged with decaying matter, and likely to cause sickness of a serious character, yet the people gen[illegible] maintain a full average amount of health. Thou[illegible] low and pale, and sometimes deficient in energy [illegible] are quite able to follow their occupations and pros[illegible] their work efficiently.

As tending to foster a healthy condition, the peop[illegible] are much in the open air. Their employments nece[illegible] tate this; their houses, besides, are *put together* ve[illegible] loosely, and are thus well ventilated, and their sho[illegible] and work-rooms have no fronts, so that those engaged in business are literally in the open air all the day long.

The practice of dressing in cotton-wadded and warm fur-clothing in the winter, making the wearers independent of artificial heat, is also very conducive to health. If you take the hand of a man who is occupying a cold, open room, you will find it warm and

comfortable. Everyone who can afford this sort of clothing wears it through the winter; and there are very few but can obtain a coarse sheep skin or wadded coat for a warm dress. Thus carrying a warm atmosphere about with them in the winter, helps greatly to their physical comfort as well as health.

CHAP. III.

TEA HALLS IN SHANGHAI, AND IN THE VILLAGES.—REFRESHMENTS PROVIDED GRATUITOUSLY.—BATHING HOUSES.—SUICIDES AND INQUESTS.—USE OF ARSENIC.—ATTEMPTS TO ASSASSINATE.—NATIVE REMEDIES.

In Chinese cities there are large shops, or halls, to which the people go for the purpose of refreshment and social relaxation, and where tea is the only beverage. Some few are in the habit of drinking native wine and spirits, but very few drunkards are seen in a Chinese city. Drunkenness is not a national vice in China; tea-drinking is so general that it may be described as the national habit.

On occasion of a public show, or when people are much abroad for amusement, or visiting the temples, a visit to one of the public tea shops is interesting. Many square tables are scattered over the room, each of which will accommodate four persons sitting round it. When a party enters and is seated, the attendant or waiter immediately places on the table one or more cups, each cup having a cover, and containing a small quantity of tea. He then brings boiling water in a kettle and fills the cups, or takes the cups to a large kettle, and having filled them, brings them to the table. The customers will perhaps ask for some kind of cake, or salted melon seeds and tobacco. The Chinese never

seem to enjoy conversation unless they have melon seeds to crack at the same time. They are very fond of them, and when a man has leisure, he buys a few melon seeds, cracks the skin with his teeth, extracts the seed with his tongue, spitting out the shell at the same time, and the crackling sound produced when many are together, as at some entertainments, is very peculiar; men, women, and children, busy with their seeds, as though they were essential to the carrying on of the conversation. The party of friends at the tea shop have each their cup with tea filled once and again, some melon seeds, and a little tobacco for their pipes, and at the end of their talk will each pay three cash for the tea, and two cash for the other refreshments. If a cake has been had, that will cost four or eight cash, according to its size and quality; and if they sit talking for an hour, they must repeat their order for tea. Thus a party of friends will spend their evening in company, drinking their tea, cracking their seeds, smoking and talking pleasantly, and at the end of the evening's entertainment, each person will have expended at the utmost the sum of one halfpenny.

These shops are regularly authorised, and are under the surveillance of the police. Intoxicating drinks of any kind are not allowed in them, on the ground that where so many people congregate, the admission of wines and spirits would be followed by quarrelling and disturbance. The tea shops are the great places for talking, but while the citizens may talk politics as much as they choose, the police are on the alert against the utterance of seditious language.

The kettle in which the water is boiled is a curiosity

in its way. It is a large copper vessel, capable of containing five or six gallons of water; it is cylindrical in shape, or consists rather of two cylinders, the smaller one within the other, and these hold the water between them. The internal cylinder contains a fire-grate, the chimney of which protrudes at the top of the kettle. A charcoal fire is lighted, and the water, which is admitted through a funnel and pipe from the top, is soon boiling. On the one side of the kettle is a handle, and on the other a large square spout which curves upwards, and ends with a square, closed face, in the centre of which is a small hole. The kettle stands on a stool, and is so balanced as to be easily inclined in one direction. When the waiter tilts it up, the formation of the spout causes a jet of water to spring from the hole in the square face of the spout, from which he fills the cups, or the smaller kettle which he holds in his hand. Great dexterity is shown in this. The waiter will take three cups in his left hand, and tilting the kettle with his right, will manage it so cleverly as not to spill a drop of the boiling water. Though the skin of the Chinese is delicate, these waiters are not at all distressed at holding the cups of boiling water in their hands. When one of them has filled his three cups, he will fill others in like manner, and piling six or eight of them on his left hand, go round to supply the tables. When filling the cups at the table, he has a kettle of boiling water, and though several persons are sitting round, he will, as it were, shoot the water into each cup so nicely as to exactly fill it and no more. Friends who have accompanied me to a tea shop have often expressed surprise that the waiter should do this in so

adroit and confident a manner, without scalding those who were sitting so near, and who did not pause in their conversation for an instant, though prepared to administer a sharp scolding to the waiter had he faltered or hesitated in the supply of their wants.

To entice customers, the proprietor sometimes invites a scholar who has the gift of eloquence or story-telling to speak on certain days or evenings. A table is placed on benches at the side of the hall, with a chair for the scholar, who takes his place, and having been supplied with tea and tobacco begins his story. His subject is often taken from some historical novel, as "The History of the Three States," or he will recite some classical story, an adventurous history, or personal narrative. After leading his hearers to the point of the story, he pauses while his open fan is sent round for the contributions of the liberal. If he is satisfied he will proceed, but if not, he waits until they give more. The story is all the more telling when it partakes of the dramatic, enlivened by a little singing, to the accompaniment of a violin. The object of the proprietor is to attract passers-by, who are at liberty to enter and listen to the story, but are expected to order one or more cups of tea; the contribution to the story-teller is one or two cash.

Some of these men have a great reputation. A good voice, if well managed, and accompanied by a vivid imagination, ensures popularity. Crowds go to hear the story, which will be enlivened by humorous incidents and sketches of men and things. Placards at the door frequently announce the intention of a certain teacher to give some well-known history, and upon

these occasions numbers of people collect early for the purpose of securing good seats in the hall. Others of these scholars occupy tea shops which are more retired, and before a select audience give explanations of the classics, or commentaries on some literary subject, and sometimes a digest of historical periods in the annals of the empire. The assembly in this case is composed of respectable men, who thus learn something of their native literature, and revive their knowledge previously acquired. The scene thus presented is a striking one; the teacher discoursing eloquently, fixing the attention of his hearers, who, in their turn, pay him marked respect, as he thus enlarges the acquaintance with historical or general literature. There are also places which are much resorted to by the lower orders, where a scholar of smaller pretensions, perhaps an itinerant story-teller, will occupy the table, and where the stories are mostly descriptive of domestic life, into which indecent allusions are introduced to excite the laughter or the lower passions of the listeners.

There are no newspapers in China except the official gazettes, published at Pekin and the provincial cities. The news is therefore gathered by the keepers of the tea halls, and retailed to their customers, who on their part carry thither any information they pick up outside. A report is considered to be authenticated by the remark, "It is commonly spoken of in the tea shops;" or is supposed to be generally credited, when "it is discussed at such and such a tea shop." At these places the state of public feeling may be easily learned. The magistrate of the city will send his officers there to

listen to the conversation of the people, and if any obnoxious sentiments are spoken, the proprietor is fined, or warned that a repetition of the offence will cause his house to be closed. The mutual responsibility acknowledged amongst the Chinese in their public relations operates strongly amongst these men. They are held accountable for the good and quiet behaviour of their customers, and are fined or punished for any breach of the peace.

In addition to these establishments in the city, there are similar houses in the villages and by the road-sides, which are of great service to travellers and passers-by. Frequently when athirst and weary on a pedestrian journey in the hot summer day, I have enjoyed the cool shade afforded by these places, and the cup of hot tea prepared in the Chinese fashion. The boiling water is poured upon a small quantity of tea in the cup, which is covered for the tea "to draw." The drinker, then slightly tilting the small cover on one side, strains the leaves aside as he drinks, and proceeds on his journey refreshed and invigorated. When a student or a workman expects to remain for any time at a place, he will take with him his teapot filled with weak tea, and refresh himself by sucking it from the narrow spout, which is somewhat difficult to pour from. Wherever you go, you will find the teacup or teapot; in shops upon the counter, customers being perfectly welcome to use it as they choose, or when a visitor enters a house he is supplied with hot tea. A small table is at once placed by his side, and a cup of tea being handed to him, he is politely asked to partake, after which he makes his inquiries, or enters on his business.

Wealthy persons by subscribing together, and at times entirely at individual cost, will provide during the heat of summer large buckets or jars filled with weak tea, for the refreshment of the public. These jars, with a cup floating at the top, are placed in a small mat shed in the public thoroughfares, in the main roads leading to the cities, or wherever large numbers of coolies or porters frequent. All comers are invited to partake; an announcement stating the tea to be provided for the refreshment of weary and thirsty workmen and travellers. A crowd may be generally seen around the bench on which the jar stands, while travellers, hot and dusty, sit in the shade of the mat, all enjoying their cup of tea without expense. It is thought highly meritorious of the individual who sets up one of these tea sheds for the refreshment of his poorer countrymen. The plan has been worthily imitated in England by the establishment of drinking-fountains, the scenes at which on a hot day in London have often reminded me of similar scenes in China.

On the roads which lead over hills and through mountain passes stone pavilions are erected, with stone seats all round, where tea is gratuitously supplied to those who desire it; there are also tea shops in the villages, where the beverage can be paid for.

At Shanghai there are numerous bathing houses established by private persons as a source of profit. These houses are for the most part very commodious and clean, and much resorted to by the Chinese, especially in the latter part of the day. The cost of a bath is six copper cash, exactly one farthing of our

money; if a cup of tea and a pipe of tobacco be added, the charge will be nine cash.

At the front of the house is a large hall fitted with boxes and compartments, where the visitors place their clothes under the care of a keeper, who supplies the bather with a clean towel, and is responsible for his property while he is absent in the bath. A passage from this hall leads to the bathing apartment, which is a small room, taken up, for the greater part, by a large water-trough about a foot in depth, made of tiles or slabs of white marble. Through the floor of this tiled trough two or three circular holes are made, into which iron boilers are placed, having their edges thoroughly cemented. When the trough is filled with [illegible] fire is lighted under the boilers in the fire-p[illegible]ich has been built for the purpose, and the wa[illegible] soon heated. The bathers sit on planks placed across the trough, and wash themselves in the steam. A teacher of mine who was one day enjoying his bath after this fashion, slipped off the plank into the water, and was severely scalded.

The water is usually changed only once, but in some establishments twice, in the day, — a circumstance which, though repulsive to the habits of Europeans, does not affect the Chinese, who enjoy their bath with quite as much relish in the evening as earlier in the day, when the water is fresh and clean. There is no doubt as to the value of these establishments (frequented only by the male sex) as regards the cleanliness and comfort of the people, who can have the luxury of a hot bath at a very low charge. The average daily attendance at the larger houses is said to be about 1000, and

there are similar establishments at most of the large cities. Visitors to Japan remark, that in that country the bath-room is used by both sexes indiscriminately, without any apparent inconvenience. This is not the case in China.

Four cases of attempted suicide are mentioned in one of my early reports from Chusan. A solution of salt and water had been used, half a pint of which when swallowed is supposed by the natives of Chusan to cause death. Sometimes an infusion of tobacco is added, which would be injurious in proportion to its strength; and in one of the above cases a weak infusion of the narcotic had been taken, but with no other effect than nausea and vomiting. Although it is the common opinion that this draught is fatal in its effect, no result has even been probable in any of the cases in which medical relief was requested. Two of these were women, who, after being beaten by their husbands, wished either to frighten or to bring the guilt of their death upon their offending partners. Another young woman had taken the solution, having been offended by her grandmother, who hindered her from washing her clothes when she wished to do so; she therefore thought it better to die than live. The fourth was a man who had had a dispute with his sister's husband about a trifle of money, which not ending to his satisfaction, he attempted suicide.

The ordinary suicides are by means of opium, or hanging, and drowning. Among rich people swallowing gold is sometimes adopted to take away life. Of suicide by arsenic, the case to be mentioned is the only one of the kind that was dealt with at the hospital.

The opium-swallower takes one to three drachms of the drug as prepared for smoking, which he mixes with wine. The women generally hang themselves, and sometimes end their life by throwing themselves headlong into a well. Various accounts are given of the fatal operation of gold-swallowing. It is said that a bolus of gold-leaf, followed by a draught of water, causes speedy death; or a handful of the loose leaf thrust into the mouth will have the same result through suffocation. The idea is that gold in the thin leaf is a powerful poison, but the effect can only be mechanical after all.

The causes of suicide, however seemingly various, are chiefly disappointment and revenge. One man poisoned himself with opium because he had lost his money at the gaming-table, and was ashamed to meet his partner in business; another attempted his life out of revenge upon his brother, who had defrauded him of some money, and who would have been held guilty of his murder. This mode of bringing disgrace upon others is not uncommon amongst the Chinese, even though it cost them the price of their own life. A woman attempted to poison herself that she might annoy her husband, who had reproved her for some misconduct. Another who had been refused some liberty she wished for, took this method of obtaining her freedom; and others, from domestic differences, and other more trifling causes, such as pawning another person's clothes and not having money enough to redeem them for the owner, have little hesitation in depriving themselves of life. A young woman was seen on one occasion who was dying from the effects of

opium. Her husband, an old man, who had lately purchased his young wife, had reproved her for not trimming the lamp properly. Not liking his society, and knowing he had paid a high price for her, she revenged herself by swallowing a large dose of opium. On the bedclothes being thrown back during the attempts for her restoration, it was found that she had dressed herself in her best clothes, and had put on a handsome pair of new shoes. "Ah!" exclaimed an old woman standing by, "see how determined she was to kill herself! She has dressed herself for the journey." The bystanders were evidently shocked at the marked determination of the unfortunate young woman to put an end to her life. Very many of these suicides are from causes lamentably trivial. If a merchant or tea-broker, after bringing his goods to market, finds he has not managed well, or lost his chance of a good profit, he cannot bear to return to his native village, and therefore hangs himself. The blame is thrown on the native merchant with whom the man had been dealing, and who often gets into trouble at the magistrate's office, and has to bribe the friends to silence. Two brokers, who had sold at a heavy loss, rather than return home hanged themselves in company in the bedroom of the hotel where they were staying. These hotels are kept by the city merchants with whom the brokers deal, who board and lodge at their expense; these two men testified their repugnance to the merchant they were doing business with by destroying themselves in his house.

A case of poisoning by arsenic was brought to the hospital, the only instance, as has been said, which

came under my notice there. The patient was a barber by trade, and, having quarrelled with his partner about the spending of some money, to be revenged upon him took a quantity of white oxide of arsenic, about two drachms. This poison may be procured at the native drug-shops, though not without difficulty, nor by every applicant. Copious vomitings had followed the dose in this instance, and the greater portion of the poison had been ejected. The man had severe pain in the bowels, with excessive thirst, and a sensation of intense burning in the fauces. Six days after taking the poison he was brought to the hospital in a most distressing state, emaciated to the last degree, the mouth and throat covered with ulcers, and the patient constantly rolling in his bed in fearful agony. The mucous membrane of the stomach and bowels was evidently extensively ulcerated; neither medicine nor food would remain, and opiates gave but little relief. The day after he had rubbed the skin from his elbows, knees, and sacrum, the abraded surfaces showing a sloughy appearance, and no care nor pains could wholly prevent the flies from settling on them and depositing their eggs. Indeed, the state of the unfortunate man was one of such extreme and frightful misery as hardly to be equalled. On the ninth day after taking the poison he became insensible, and the following day died.

In 1851 occurred a case of suicide by cutting the throat. The man was about forty-five years of age, and had been an assistant in a native tea-hong, or firm. He had lost his money in some business speculation, and the brokers declining to make him a further advance, he resolved to finish his existence. Opium fail-

ing him in the first instance, he had recourse to a sharp-pointed pocket-knife, of native manufacture, with which he made three incisions or stabs in the same spot over the trachea, into which eventually he made an opening. When seen about four hours afterwards, he was rapidly sinking. There was a wound about an inch long over the trachea in the direction of its tube, just below the cricoid cartilage, from which bloody froth was expelled at every expiration. The man was so far sunk as to be beyond the reach of assistance.

The partners in the hong, hearing that the man would die, urgently insisted on his removal to another house, else their business would be ruined; the officers of the law would hold them responsible for his life, and punish them if he died on their premises under such circumstances. It was told them that the man would die in the removal to another place; but they replied that he would die at all events, and they should remove him. This they did; but the man did not survive an hour, probably not long enough to reach the other house, which belonged to a relative. This relative was a poor man, to fleece whom would be impossible to the officials, who might have obtained heavy sums from the tea-firm, as hush-money, or in commutation of the fine to which they could be made liable.

Such is often the state of things in China, and life is sacrificed by the pretended anxiety of the officials to spare it; for they are presumed to be guided in all their movements by a fatherly interest in the welfare of the people. It is easy to see, however, how this love of pelf on their part entails sorrow upon any wealthy man who is so unfortunate as to be brought,

as in a case of the above kind, within the grasp of the law; his only way of escape is by paying largely, and he may count himself happy if he be not ruined.

A respectable Canton man was one day brought in, who, in a fit of intoxication, after several incisions across the throat, divided the soft parts close down to the vertebræ. The larynx was completely divided, the œsophagus partly severed, and the carotid arteries were beating on the surface of the wound. There was much bleeding from the great surface exposed, and the man was exhausted, partly from the hæmorrhage, and partly from the suffocation caused by detached portions of muscle being sucked into the trachea at every inspiration. Nothing could be done towards closing the large wound beyond the cleansing it of blood, and the removal of loose strips of skin and muscle, and making the man as comfortable as possible; he was past relief. He lived thirty-six hours, could take no food, but had his mouth refreshed with tea. He retained his consciousness, however, to the last, and by signs seemed to express his remorse for the desperate act he had committed.

Another case of attempted suicide was that of an elderly woman, who, having been annoyed at some family discord, had cut her throat with a blunt knife. She had divided and torn the trachea just below the larynx, destroying part of the cartilaginous rings, and making a large hole in the tube. For the first two or three days after her admission to the hospital, she appeared to be sinking, and became so much reduced that her friends brought her grave-clothes, which were laid upon the bed that she might see how she was to

be buried. After this she began to revive, but had a severe attack of bronchitis; the wound, which had been much inflamed about the edges, began to granulate, and some hope of her recovery was cherished. Her friends insisted, contrary to all remonstrance, in removing her home, where, however, she continued to improve, the last news of her being that she was much better, and the wound diminishing in size.

Inquests are held by the Chinese officers on the bodies of all persons who have met with violent deaths, and attached to every magistrate's office is a coroner, who investigates such cases as far as possible.

In August 1850, a man was brought to the hospital, having received a violent blow on the abdomen, and shortly after admission expired. From his appearance, that of a person dying from hæmorrhage, it was probable that the spleen, or some other organ, had been ruptured. Late in the afternoon of the same day, Chinese police-runners arrived, and proceeded to arrange a table and chair, as if for the reception of an officer. They stated, in reply to an inquiry as to what they were doing, that their master, the magistrate of the city, was coming to hold an inquest on the body of the man who had been killed that day. They acknowledged that they had brought no card, and that leave had not been given for their proceedings, but said the affair was urgent, and the magistrate was on his way. When they were told that they were knowingly guilty of unpoliteness, and that they must bring a card before the magistrate would be allowed to enter the premises, they remonstrated. Finding this of no avail, they took up their cushions and carpets, and departed.

They came back shortly afterwards with a small card, which they well knew would not be received, as it was a rudeness to offer it. Accordingly, when all their plans had failed, and aware that they would be punished if a complaint were made, they hurried off, discomfited, to stop their master, and obtain the large visiting card proper on such occasions, and come to the hospital to ask leave to enter the premises.

Immediately afterwards the officer arrived, and was properly received. He took his seat, and examined the brother of the deceased, and other persons who knelt before him, as to the cause of death. He then went into the ward where the body lay; the clothes were removed, and the surface examined, to discover the seat of the injury. As this could not be found, the assistant-coroner (the magistrate is the chief coroner, but the assistant, who is a medical man, transacts all the business of the department) said he thought the man was not dead. The officer was much confused at this, not knowing what to do next, and apparently wholly at a loss to ascertain whether the man was alive or dead. Both of them, after trying the pulse, said they felt it beating, their agitation evidently preventing a calm judgment in the matter. They were relieved, however, by the assurance that the man was indeed dead, and then the question came as to what had killed him. It was explained to them that probably internal hæmorrhage had followed the blow, or that there had been a rupture of some internal organ which was the cause of death, but that an examination would soon settle the matter. This, they said, was quite out of the question, as being contrary to all Chinese custom; and after

debating as to the cause of death for some time, they agreed that nothing further could be known about it, and left, wholly undecided as to the finding. Eventually a verdict of murder was brought against the man who had struck the deceased, but punishment of death was only recorded. In such a case no time is fixed for the execution of the sentence, and after some months, when the affair is supposed to be forgotten, the culprit is either heavily fined or banished the neighbourhood.

A respectable money-changer who had been robbed, and then stabbed in the side, was carried to the hospital bleeding profusely from the wound, which was probably in the substance of the liver. After two days he died from internal hæmorrhage. The magistrate held an inquest at the hospital, and examined the friends of the deceased, as well as the persons who were with him at the time of the murder. The assistant-coroner examined the corpse, which was brought from the ward and laid on a mat in the yard. He decided that the wound was in one of the organs supposed by the Chinese to be vital, but without referring at all to the wound of the liver itself; and the conclusion arrived at was that the man had been killed. The murderer was not known, and could not be traced, nor could any of the money be recovered, which seemed, after all, to be the chief cause of grief to the relatives and friends of the deceased.

In the accounts of ague and its treatment by Chinese writers on medicine, there has been little found of any great interest. The descriptions of this disease are particularly meagre and unsatisfactory. But one prescription shows that the Chinese are acquainted with the power of arsenic in checking the periodicity of

ague. This prescription was obtained from a teacher, who said it formed one of a series which had been kept for a long time in his family. As it relates to a subject of great importance, the prescription is given entire in the following translation:—

"Prescription to stop the tertian, or great ague.

"Take one dried orange; orpiment, or sulphuret of arsenic, three drachms; scoop out the inside of the orange, introduce the arsenic into the hollow, and over a slow fire let it be roasted to ashes, preserving the essence of both articles; then reduce the whole to powder, and of this let each dose be three drachms, taken with old or mellow wine."

According to this mode of preparation, the dose of arsenic must be very uncertain. The sulphuret being volatile, a large portion will pass off, while some of the metal, in the form of oxide, will remain among the ashes in quantity sufficient for a powerful dose. The prescription is interesting as showing the Chinese to have discovered the value of arsenic in connection with ague, for which disease it is perhaps the most effectual remedy. The circumstance of this medicine being so used by the Chinese may lead to further researches into native medical treatises, and possibly to the discovery of other analogies between their practice and that of Europeans.

"The collection of renowned prescriptions" contains the following, of which the first is for the cure of ague, and the others for diseases of the teeth. They are cited as showing that the drug is employed by the Chinese for diseases, and that so far their use of it is identical with that of Western physicians.

"Prescription for ague.—Take of Fan-muh-peih seeds, having removed the shell and roasted the kernel, one ounce; levigated orpiment, one drachm; levigated cinnabar, one drachm; liquorice-root, one drachm: of the above each dose is to be from twenty-four to thirty grains, mixed with wine, and taken on the day when the attack of ague is expected."

"A wonderful prescription for stopping toothache.—Take nitrate of potass, one drachm; Borneo camphor, six grains; orpiment, six grains; sulphate of soda, thirty grains: grind the whole to a powder, with which rub the aching tooth, and the pain will be relieved."

"Prescription for toothache, with ulceration of the gums.—Take of Chuen-lun, two drachms; orpiment, two drachms; burnt alum, two drachms; jin-chung-pih, one drachm; burnt borax, one drachm; musk, eight grains; Borneo camphor, twelve grains; fresh liquorice-root, eighteen grains; bezoar, twelve grains: grind the whole to powder, first wash out the mouth with tea, then with a reed-pipe blow some of the powder on the affected part, and afterwards wash the mouth again."

Whether the Chinese use arsenic for any art purposes is not known, but it may be mentioned that in the Government assay-office, when the molten silver is poured into the mould, a pinch of white oxide of arsenic is thrown on the surface, which cleanses the metal of impurities, and gives a bright and shining face to the ingot as it leaves the mould.

In the manufacture of what is called Pekin tobacco the same article is used. A small quantity of the oxide is well mixed and worked up with the leaves, which are afterwards chopped small and formed into cakes

which are of a greenish hue. This tobacco is only used in a "water-pipe," a kind of hookah, the smoke passing through water, which the Chinese say absorbs the greater part of the fumes of the arsenic, and prevents their being injurious to the smoker. The arsenic is added because it is said to give a peculiar pungent taste to the smoke, which is very agreeable to those who are used to it. This Pekin green tobacco is in large request, especially at the tea shops, but is not used constantly. Those who fancy this preparation have a division in their boxes, which hold the Pekin tobacco on the one side and the common yellow tobacco on the other.

CHAP. IV.

STEAMING BREAD. — PRODUCTION OF RICE. — BEANS. — MANUFACTURE OF SOY. — PULSE — CURD. — OIL FROM COTTON-SEED. — VARNISH. — METHOD OF COLLECTING AND USING IT. — TEA-CHEST LINING. — BAMBOOS. — WATCH-SPRINGS. — FANCY ARTICLES. — CASTING COPPER CASH. — SILVER COIN. — GOLD.

THE glimpses of Chinese industry and manners, supplied by the following brief notices, may help to a better understanding of the people. Seen "at home," their character reveals itself without restraint; and their ingenuity, in the adaptation of their knowledge in various arts and manufactures, and the application of them, for purposes of use and ornament, is not more striking than it is worthy of commendation. As will be perceived, the statements for the most part relate to what came under personal observation. Much more of a similar character might be recorded, yet probably sufficient is given in these pages towards forming a fair idea of the ways and doings of the inhabitants of China, and of their life in "the interior."

The mode of steaming bread is curious. Flat cakes of wheaten flour, leavened, having been placed on a slightly heated pan, to cause them to rise, are transferred to a steam-heated oven till they are thoroughly cooked. The construction of the oven is as follows: an iron boiler built into a fire-place has its upper edge projecting above the bricks, and round this is fastened

a thin broad wooden hoop, with a groove near the lower rim which receives the edge of the boiler, the upper rim being fitted with another hoop about four inches in depth, and having for its bottom a bamboo network, being similar to a coarse sieve. Above this there are eight or ten hoops of the same description (the shaving of which these hoops are made is cut off a piece of fine-grained pine, by a large heavy plane, and is very neatly cut), and at the top is another, having a cover, close and light, of plaited bamboo and palm leaves sewed over it. The cakes of leavened flour are placed on the network in every hoop; the water in the boiler is heated by a strong fire, till a hot steam is driven through all the divisions, and by-and-by the bread is, not baked, but thoroughly steam-boiled. These cakes are very light and good; they were used as bread by foreigners in Shanghai for a long time after their first arrival there. Split and toasted as they were required, these steam-cooked cakes were very acceptable.

Rice is the staple food in China, and is produced in enormous quantities. Wheat and maize, which are grown to a considerable extent, are used chiefly in making cakes of various kinds, the greater portion of which are eaten as a sort of luncheon, or, as the Chinese call it, Teen-sin, supporting the heart or adding to the spirits. These cakes, enclosing chopped leeks or onions, are then baked, and are much favoured by the Chinese, but are not eaten with much relish by the European.

Rice is threshed from the ear with a flail. This consists of a handle of bamboo six feet long, having a spindle projecting laterally near the upper end. The

flail, made of several pieces of bamboo, fastened side by side, and let into a heavy bit of wood at the free end, revolves round the spindle by a jerk of the long handle, and is brought down with a sharp blow on the ears of rice.

The husk is cleared by another process. Two wheels of pine, each about two feet in diameter, are constructed. Pieces of the wood, about two inches thick and six inches long, are arranged in a circular bundle or faggot, and fastened round with strips of bamboo folded like a long cord, which is plaited together till it is very strong. Thin wedges are then driven into the interstices which remain between the pieces, till the whole is tight and firm; projections are sawn away, to make an even surface; and the cross grain of the wood being outside, gives the rubbing force, or grind, to the mill. One wheel is fixed on a firm heavy stool, and has an iron spindle in the centre, projecting upwards, on which the upper wheel works. The centre of this wheel is cut away around the spindle, and a cross-bar fixed across the hole on the upper side is pierced for the spindle. The rice is thrown into the mill, through the central hole in the upper wheel, which is made to revolve by means of a long handle with a crook at the end, which fits loosely into a hole at the edge of the wheel. A man pushing this handle to and fro, and giving it play, drives the wheel round. With a long paddle he throws fresh rice into the central hole, which is worked between the rough surfaces of the wheels, and, being rolled over and over, is pushed out at the sides and falls to the ground. The weight of the wheels, or wooden "mill-stones," is sufficient to rub

off the husk without breaking the hard grain. The grain is winnowed by letting a quantity of the husked rice fall from a height, for the wind to blow off the dust, or by a winnowing machine, precisely like the machine in use in England, which latter is probably a copy of the Chinese article in every particular, even to the catch or stop of the hopper. The rice thus cleared is placed in a large deep earthenware mortar, in which works a stone pestle, raised by a treadle, where it is not pounded, but, from the attrition of the grains, is well polished. A piece of chalk is thrown in to help this effect, and also to whiten the rice. The whole is then thrown on a large sieve, the dust cleared off, and the rice left clean and white, fit for domestic use. The broken grains are again sieved out of the dust, and sold at a cheap rate.

The Chinese are very particular about the cooking of their rice. It is first washed in a bamboo basket, to remove the chalk, dust, and other impurities; it is then placed in a boiler, with water enough to cover it, and, the boiler being covered in like the steam oven, the rice is soon cooked. Another mode is to fix the damp rice in a basket on a little bamboo trivet in the boiling water, cover the boiler, and the rice is cooked by the steam.

Large quantities of *pulse*, a species of round white or yellowish bean, are grown in the north of China, at Shan-tung and Chih-le, and in the south of Man-tchouria, the yearly produce of this article is enormous. Its exportation forms a large branch of commerce; and the carrying of the beans, oil, and cakes gives employ-

ment to many thousand junks, which bring down their cargoes to Shanghai, Ningpo, and other ports.

These beans are used chiefly for making oil: the other uses of them are subordinate to this. They are ground in two mills, the first of which has a hopper, whence the beans gradually flow on to a flat bed, on which two upright broad stone wheels revolve. These wheels, which closely resemble those in use in English oil-mills, crush the beans, which are then taken to the second mill. A circle of short curved stones, about thirty feet in diameter, is made on the ground. An angular groove of nine or ten inches in depth is cut around the edge, and in the centre is placed a strong revolving spindle. From this, horizontal arms, which stretch as far as the circumference of the circle, pass through the centres of as many upright stone wheels, which have their edges cut triangularly, to fit the large groove along which they travel. Buffaloes attached by gearing to the parts of the arms which project through the centres of the upright wheels, take the outside round of the large circle, and work the mill; the beans already crushed, being placed under the revolving wheels in the angular groove, are speedily comminuted.

They are then transferred to baskets, which are placed on the top of a steaming apparatus, over a brisk fire, and covered with a wisp of straw, to be used afterwards, but which now serves to retain the steam over the beans while itself is being heated. The workman now takes a small hoop of bamboo, not solid, but made of plaited strips, that it may be elastic and yield to pressure, and lays it flat on a board on

the ground.* The beans are by this time very hot, the wisp of straw is removed from the top of the basket, and placed over the hoop. This wisp is a handful of straight straw, tied together at the thick ends, and is placed over the hoop, the straw opened out in a circular form, with the tied end in the centre. The basket of hot beans is emptied on the straw; the projecting ends are doubled over the beans, and the whole is pushed into the hoop. Another hoop is now placed on the top, straw and beans are added, until a pile of hoops is formed, charged with straw and beans in alternate layers. By means of poles fixed at the sides of the pile, the workman stands upon, and presses it down. The pile being completed as rapidly as possible, to preserve the heat, it is removed to a horizontal frame or press, having one end a few inches lower than the other. To facilitate this removal, a broad wooden spatula is thrust in below the upper half-dozen hoops, which are taken off and followed by the rest, which are removed in like manner. A circular piece of wood wider than the hoops is laid on the free end of the pile, with a system of wedges above. Long wedges are then driven in with a heavy stone hammer wielded by a strong arm, and the oil expressed from the beans oozes through the straw and the plaited hoops, and runs through a channel into a reservoir under the floor. It is allowed to stand some days to settle, when it is filtered, first through straw and then through cloth. It is afterwards poured into large baskets, which are

* In Shanghai, these hoops were a foot in diameter, and one and a half inch in thickness; in Shan-tung, these measurements were nearly doubled.

lined with a very tough thin paper glued to the inside of the basket by varnish, and then varnished over. The oil never exudes if the paper has been properly attached to the baskets, each of which will hold 100 pounds of oil, and is of the shape of a large flat jar, with a narrow mouth. This is covered with varnished paper, when these baskets filled with oil are sent on board ship or overland, and travel without accident.

The bean-cake, or residue after expression of the oil, is largely used as manure, and is found to fatten the land and improve the crops. It is never eaten by cattle.

Soy is made from the same bean, which after being slightly boiled in water is placed in the open air, in large jars with basket tops, for the purpose of fermentation. The beans turn brown and soft, and become a brown pultaceous mass. After the soy has drained away or been expressed, it is strained and packed in small jars for sale. No use is made of the residue.

Tau fu, or pulse-curd, is made by steeping the beans in cold water, when being soft they are ground between two flat stones. A spindle fixed in the centre of the lower passes through the upper stone, in which a hole is made about halfway between the centre and the rim. Through this hole the beans are passed as the upper stone revolves, by means of a handle fixed in the side of its rim. When ground they pass out at the rim as a creamy liquid, which is placed in a vat to settle. The supernatant fluid is afterwards drawn off, and the curd placed on a suspended square of cloth to get rid of more of the liquid. It is then transferred to square wooden frames lined with cloth, and next into

a bean press loaded with a large stone. The remaining liquid drains out, leaving behind a thick cake of solid curd, which is cut up into small squares. The curd is also sold after it leaves the filter and before it is pressed, and in both forms is fried with a little oil, and eaten as a relish with rice. Sometimes cakes of curd are exposed to the air to ferment, when they become brown and dry, turning partly into soy, and form a tasty combination, much relished by the Chinese, of curd and soy.

The beans are also given to animals, especially sheep and goats, as we give them brown peas.

The seeds of the cotton plant are treated in the same way as the beans. The oil expressed from them is dark and thick, and is used for common lamps, but makes much smoke. It is used also by the makers of common Chinese ink to produce the lamp-black. The cake is highly valued as food for cattle.

The bean-oil is used for lamps, and also for cooking purposes. It is a pale, thin, clear oil, rather strong in smell, but not disagreeable.

The oil mills are very large establishments, and always at work. In some of them from fifty to sixty buffaloes are kept to perform the work at the stone wheels.

Varnish—Lacquer—Paint.—The pure varnish flows from incisions in the bark of the Rhus vernix, a species of sumach which is called the varnish-tree. The juice, at first, is of a yellowish-grey colour, which turns black on exposure to the air. It is very irritating to the skin, producing troublesome sores on the hands of those who gather it, if they allow it to come in contact

with them. It retains this quality even after the paint is dry and has been for a long time exposed to the air. Some foreigners are very susceptible to the action of the varnish poison. A visit to a lacquer-shop, or the varnishing of some article of furniture in the house, has been followed by an attack of severe nettle-rash, and sometimes even of erysipelas of the face. A patient suffering an attack of this kind once sent for me. He had frequently experienced the effect of the varnish before, but could not account for the present attack. He said he had not bought or used any lacquer ware; no new furniture had been brought in: but at last it was remembered that a carpenter had been repairing a door which had slightly warped, and it was found that on finishing his work he had rubbed a little varnish over the new surface caused by his plane. This was quite sufficient to affect the susceptible patient.

Several of these varnish-trees grow in the gardens of the London Mission at Shanghai, and it was found that the varnish flowed readily from slight wounds in the bark, and dried in black stains on the stem. The chief districts where the article is produced are in the province of Ngan-hwui, which are also the green-tea districts. Hence it is generally found in the warehouses of the native wholesale tea-brokers. The varnish is gathered in the heat of summer; it is scraped from the trees and carried home in bamboo cups, and emptied from them into wooden tubs lined with a stiff paper, and is then sent to market. All the articles used in the storing of the varnish acquire a beautifully hard, black, and polished surface, which even resists the action of boiling water.

The articles to be lacquered are of wood or pasteboard. When a large surface has to be covered, it is daubed with a combination of pig's blood and lime, with some tow or hemp; at other times the surface is covered with moist clay, which is rubbed into the grain of the wood and then scraped off, the wood being allowed to dry. After this a mixture is laid on of Tung-yew, or wood-oil (the oil of the Tung tree, a species of Dryandria), and lampblack for coarser articles; but for those which are more delicate, a mixture of varnish and lampblack. The surface is again allowed to dry; the varnish is applied with a hard brush in a thin layer, which after drying is rubbed smooth with Dutch rush and tutty-powder. Another thin layer of varnish follows, care being taken that each layer successively is rubbed properly smooth. For the finer tables and cabinets, this process of rubbing down and laying on the varnish is repeated ten or a dozen times, as the object is to produce a surface very hard and clear which retains its polish for a long time.

Various colours are added to the varnish, according to the use made of the article. Cups formed of very thin wooden strips are carefully lacquered, and serve for teacups or rice-bowls without shrinking from boiling water or being liable to fracture like porcelain. These are often of beautiful pattern, and finished with much artistic skill. One kind of lacquered ware, of the reign of Keen-lung, who gave the fashion for it in boxes, vases, cabinets, pictures, &c., is made by covering wood or cardboard with coatings of red lacquer to the thickness of a third or half of an inch. Upon this various figures, or fruits, or landscapes, are beautifully

carved in high relief, when the whole is finished by the application of a very thin layer of varnish over the whole surface. Many of these articles are perfect gems of art and finished carving, and are much prized by the Chinese. The better specimens are often copied by ordinary workmen, but they have a coarse appearance, and are far from equal to the superior productions of the reign of the emperor above named, who had so great a fancy for this branch of workmanship.

The varnish which is generally used in house-work is a mixture of the pure juice and the Tung-yew boiled together. It is laid on with a stiff brush, giving a hard polished surface of a bright coffee colour, which is very ornamental. When it is wished to show the vein of hard wood, as in rosewood, Chinese mahogany, or elm, the pure juice or varnish is used; it is rubbed into the wood and allowed to dry. After looking very dull and heavy for some months, it becomes bright, and, when wholly absorbed by the wood, presents a hard and transparent surface. The polish will retain its brilliancy for many years, and, whenever it may become dull, may be restored by means of warm water.

The Tung-yew, besides being mixed with varnish for an ornamental paint, is also used alone or with linseed and other oils as a varnish for outside woodwork, where it resists the action of the weather very effectually. Mixed with linseed-oil, it is largely used on board ship; rubbed over the masts after they have been scraped clean, and on all the woodwork inside and out, the oil sets off the vein, and gives an enduring surface. It is applied with a handful of hemp, well saturated, which

conveys the mixture to all cracks and crevices, and the work is finished with a hard brush.

This varnish will mix with any colour; the finer pigments are used for lacquer, and the coarser are mixed with the oil. The most common colour used with the latter is black, or a dull red colour consisting of levigated iron rust. When the Tung-yew is not intended to sink into the wood, the surface is prepared with blood and lime-paste, as in the preparation for lacquering.

Dutch rush, mentioned in a previous page, is a siliceous rush, the same as that known in Europe, and is used by carpenters, carvers, and varnishers to smooth any unequal surface before polishing. It is more effective for this and other delicate manipulations than their sand-paper. For varnishing and lacquering it is especially valuable. It is plaited into a small pad two inches long by an inch wide, and is used with water.

Great quantities of lead are used for making the thin *lining of tea-chests*, which is formed as follows:—The plumber has a furnace on the floor, with an iron pot on the fire with melted lead, and a small iron or brass ladle. He also has two flooring tiles rather more than a foot square, which are covered with paper, pasted smooth and firm over one surface. One of these tiles is placed on the floor, but raised about three or four inches, with the papered surface upwards. The other tile is laid upon this with its papered surface down. The man gets on the tiles, and sitting on his heels, takes a ladleful of lead; putting the toes of one foot to the ground, he dexterously lifts with his left hand the front edge of the upper tile, and pours

the lead with a sweep between them. Then, raising his foot from the ground, the upper tile yields freely to his weight, and the melted lead is pressed between the papered surfaces, the surplus escaping at the edges. He immediately raises the tile, removes the sheet of lead, and proceeds to make another. His fellow-workmen examine the sheets as they are thrown off. If, as happens at times, they are irregular, they are returned to the melting-pot. If they find them in good order, they rapidly cut them square by the aid of a rule, and solder the small sheets together to serve as large ones. Paper is then pasted down on them, and they are ready to be used as lining for the chests. Sometimes the thin leaden chest is covered with paper after being made up; at other times the separate sheets are covered, and any imperfections attended to afterwards. The paper being inside, the lead chest does not affect the tea, which it would do were the lead and the tea placed in contact.

The long stems of the *bamboo plant* are used for a variety of purposes. Split longitudinally into several long strips, and these split again and again, they are reduced to ribands, with which baskets, various kinds of mats, scoops, hampers, hen-coops, dustpans, and other articles of domestic use, are made. With the entire stem, boathooks, very light and effective, are often constructed. As these implements must needs be quite straight, and the stems originally are curved like a blade of grass, the workman proceeds to reduce the curve of the bamboo. At the joint where this commences, he holds the stem over a wood fire, to soften the fibre, and then, inserting the stem into a square notch in his

working bench (sometimes he uses a broad square iron staple, driven into his bench, and a wedge), he strains on it until it is straight. This is repeated at every point of the curve until the whole length is straight. The fibre hardens as it cools, and retains its new direction. Bamboo pipe-stems are straightened in the same way. The lightness and strength of the scaffoldings made by the Chinese of bamboo poles, bound together by rattan, are often surprising to see; the scaffolding around a pagoda under repair is quite an astonishing piece of handicraft. When it is required to make a pipe or tube of bamboo, the sections are cut out with a curved chisel placed on a thin bamboo, and by working this round, the joints are broken, and then cut smooth from the inside.

The roots of the larger bamboos are large and solid; when a good one is found, it is taken care of for the wood-carvers, who buy such roots, and fashion them into mimic hills, with temples, cities, processions, and mountain scenery carved on their surface.

The spring sprouts of the bamboo are much used as a vegetable, and when young and fresh are tender and very delicious. Large quantities of these sprouts are brought from the mountainous districts in the interior, in a slightly salted state, and thus prepared are also a good vegetable.

The *horn-lanterns*, to which the Chinese are so very partial, are made of shavings of horn dexterously cut. The workman has, as usual, a stool, on which he sits in front of a charcoal furnace for heating his tools. These consist of a pair of large and strong iron calipers, the ends of which are thrust into the fire. When

hot they are taken out and wiped, and between them the joint of two horn-shavings is placed; they are brought together, and pressure is applied. The heat and pressure soften the horn, and cause the two pieces to unite firmly. This operation is repeated till all the joining is perfect; the lantern, as it proceeds, is scraped and polished, and at length presents a very handsome appearance.

On passing a lapidary's shop one day, I observed him busily cutting some article with his wheel. Looking more closely, I saw that he had, curled up as tightly as possible, an English watch-spring of blue steel. On each side a circle of thin wire had been drawn very tight, and in the space between the circles the workman had applied the edge of his wheel, which was gradually cutting its way perpendicularly through the folds of the spring. In this way two perfect steel springs would be made, half the width of the original spring, and, though weak, would be placed in watches. The Chinese cannot make watch-springs, and therefore always import them. So far as my observation enables me to say, they cannot at Shanghai make elastic steel; repeated attempts to induce them to make steel elastic, altogether failed. Their steel was hard, and they could hammer it out very readily and make edge tools with it, but had not the art of making it elastic. Whenever they had to make a spring, it was invariably of brass, which answers the purpose sufficiently, if the motion of the spring is not to be great.

The wheel used for cutting the spring, and which is also used for cutting agates and other stones, is a thin disc of soft iron or copper, made to revolve by a treadle. As it revolves, fine corundum powder and

water are applied to the edge, which enables it to cut the stone. The Chinese do not know the use of the crank, either for the lathe or the lapidary's wheel. They have two treadles with the ends of a cord attached to each, the centre of the cord passing twice or thrice over a wooden spindle. When the treadles are worked, the spindle makes two or three revolutions, and is then brought back again; but no continuous revolution can be produced in this way. Chinese workmen, taught by Europeans, learn to use the crank, and work it readily, pleased at the improvement of a continuous revolution of the wheel.

A short time since several chalcedony pipe mouthpieces were sent to me, along with the lumps of stone from which they had been cut. The mouthpieces were three and four inches in length, and four of them had been cut out of one piece of stone, leaving four holes through it. They had apparently been cut out by a hollow circular drill, which, working its way through the stone, enclosed a cylindrical piece, that was afterwards polished on a stone wheel, and had a hole drilled through its centre to adapt it for the pipe.

Mother-of-pearl buttons are cut out of the shell in a similar manner, but, the shell not being thick, or the buttons long, as in the case of the above stones, a flat circular drill is used, which readily cuts out the buttons of a larger or a smaller size, as may be required.

Pedlars go about the streets selling at a very trifling cost a variety of pretty round buttons, arranged in fives on thick paper. Curiosity as to the process of their manufacture led me to a pedlar's house to see it. The mould was very ingeniously made, as

follows. Two bricks are taken, and the face of each is ground smooth so that they will exactly fit together. Three or four moulds may be made in one pair of bricks. The mould is formed by scooping out with a chisel the exact shape of the button, one half in each brick; then two, three, or four small hollows, according to the size of the intended button, are made in the sides of the mould. When the mould is finished, and the two parts nicely adapted, a space is made for the shank, and to form this into a ring, a roll of paper is put through a hole in the brick, and traverses this space; a small channel is made to the upper or outside surface of the bricks; stops are let into one brick, which fit into hollows in the other, so that the bricks are kept together, and the moulds preserved from disarrangement; and the roll of paper is put into its place for the shank.

This being finished glass beads are placed in the hollows in the moulds, which are then closed; through the channels melted pewter is poured in, which runs into the space for the shank, then into the mould, and fills the spaces left between the beads. When all the moulds are full, the bricks are separated, the paper rolls having first been drawn out of each mould, and the button is removed. The roll of paper shapes a very neat ring for the shank. The button and shank are then dressed with a pair of pliers, and are speedily finished.

Brass-founders make very good *mouldings for small brass castings*, by means of tiles or bricks. Two of these, fine-grained, are chosen; one face of each ground smooth, that they may lie close; and stops and holes

made in the bricks, to hold them together. The mould is cut out with great care from the face of the brick, one half in each brick; a channel for the metal to run in is next cut; then the bricks are tied together with a piece of string, and the mould is ready for use.

The *casting of copper cash* does not admit the use of these brick moulds. For this a frame of wood is employed. This frame is two feet in length by one foot broad, the sides about an inch square, and being laid on a board on the floor of the workshop, is filled with founders' sand, very similar to the sand used in this country by brass-founders. When the sand has been beaten into the frame till a fine flat surface is formed, a model of the cash required is laid upon it, and half driven into the sand by a few clever blows of a wooden paddle. This model, a foot and a half in length, of hard pewter, is shaped like the branch of a tree, with a central stem and small horizontal branches from it, at the ends of which are the model coins. The central stem and these branches, of which there are as many as possible, are the channels for the molten metal, the stem projecting at one end of the frame. Two such models are placed longitudinally in one frame, of which eight or ten, fitted and furnished in a similar manner, are arranged in a pile. The frames are then removed singly, each retaining its sand, and the models are taken out one by one. The frames being replaced and short bars of wood laid across, above and below, they are firmly tied together, to keep the pile solid. Holes are next bored with a wire, in various directions, for the escape of the air, and the system of moulds being placed endwise on the ground,

the melted metal is poured in at the channels. As soon as this is cool, the frames are taken apart, the sand removed, and the cash on its branches withdrawn. After being broken off the branch by a hammer, the face of each coin is cleared by rubbing on a coarse tile; they are then strung by the hole in their centre on an iron rod, on which they are held tight while they are filed smooth and all irregularities removed, and the roll of cash is then finished. .

This copper cash is the only native currency in China. Silver and gold are largely used, but are paid by weight. *Dollars* are made occasionally for particular purposes, as lately in Shanghai, when the old Carolus dollars became so scarce that silver coin was wanted for the carrying on of trade. The local government resolved to coin money, of the weight of a *tael*, an ounce and a third of silver. This was pure sycee, or unalloyed silver, and proved to be too soft for continued use. This coin was at first taken by the people, who, however, after all the trouble and expense of the coining, when they received it in any large quantity, returned it to the crucible, and melted it into the usual shoe-shaped ingots; in consequence of which the coinage ceased.

Discs of silver * were first made by running the metal into flat moulds on iron plates, which closed like common bullet-moulds, each set of plates having three moulds. These discs, after their weight was proved,—if over or under weight they were at once returned to the melting-pot,—were hammered flat, and made as true as possible by the use of the file, so that when

* For the production of this coin.

finished they were perfectly smooth, and of one size. The pieces of silver were now taken to the stamping press, where they were impressed with rows of Chinese characters, stating the weight, place of coinage, the maker, and the name of his bank or assay-office, the local officer, the date, and the name of the emperor.

The die for these impressions consists of two parts, the obverse and reverse, which are cut on the faces of two pieces of steel, square, and a little larger than the silver discs. The reverse has steel sides made to it, in the form of a square box, with the corners open, into which steel box the obverse die exactly fits, being kept in its place by the sides.* The press had a large block of granite for a stamping stool, and affixed to it a perpendicular slide about ten feet high, across the top of which is a piece of wood, well oiled, and, some little distance off, a powerful winch. The stamping weight consists of a block of granite about 200 lbs. in weight, and bevelled off at the top so that a hole may be bored through. A strong rope attached to the winch and passing over the slide is fastened to the top of the stone, which, when hoisted to its place, is held there until it is required by a peg in the slide.

A thick piece of folded paper is laid over the lower stone, upon which is placed the box-like die, with a silver disc inside. The obverse is then fixed, covered on the top or outside with another thick piece of folded paper. When all is ready, the peg is drawn out from the slide, and the stone mass falls on the die, impressing

* The steel die from which these coins were made is now in the Museum at Jermyn Street.

the coin very efficiently. The stone is then hoisted for another disc to be placed, and so the work of stamping the coin proceeds.

These coins were milled at the edge with a cross pattern, in a very simple manner. The pattern, cut on a narrow slip of steel eight inches long, is fixed at the bottom of an angular iron groove of the same length, to enable the coins to run readily along the groove on the slip of steel. A man, with one of the finished coins between his thumb and finger, as it rolls along the groove, strikes its upper edge with a light wooden hammer. In this way the pattern on the steel is impressed on the edge, and the coin, now complete, is taken to the office for examination and distribution.

In all Chinese cities are large establishments for the melting and assaying of silver. In the course of trade, when silver passes from hand to hand, a small percentage is usually allowed for re-melting the ingots, or, as they are called, shoes, of sycee silver (they are somewhat in the form of a Chinese shoe). Silver paid to the Government is also melted, brought to a regulated standard, which is rather higher than that used in commercial transactions, and cast into square flat bars, and goes by the name of custom-house or official silver. Dollars also are put into the crucible, and, having been brought to the required standard by the removal of the alloy, are cast into the usual ingots.

The crucibles, made of fine fire clay, though very soft and friable, stand the heat remarkably well, and, being cheap, can be used freely. Large quantities of them are kept in store, as they improve by keeping. A crucible, when not suffered to cool, is used

three or four times, after which it is broken up, and examined for any particles of silver. When used, it is placed on a stand in the furnace, over a fire of charcoal urged by bellows; the silver is put in, and covered by a tile; charcoal is thrown over all, and the fire urged to a white heat, which is concentrated as much as possible by curved tiles placed around. As soon as the silver melts, pieces of lead are thrown in, and a quantity of nitre, which causes violent ebullition and frothing from the crucible, into which fine white sand is then cast, and the vitreous scum that rises to the surface is removed by a pair of long tongs or pincers, which are stirred round and round till all the scum disappears. These pincers are used because, when their points are dipped into water and violently opened, the vitreous matter gathered around them may be readily knocked off, and they may be used again without delay. The workman then holds his pincers over the silver to see if their reflection be clear and distinct; if not, nitre and sand are again used to separate the remaining lead and copper. When at length the reflection of the tongs is bright on the surface of the glowing silver, a pinch of white oxide of arsenic is thrown into the crucible. This speedily evaporates, and is said to have the effect of giving splendour to the silver,—"making it shine," "giving it shine" or "brightness." The tiles are then removed, the crucible drawn out with tongs having semi-circular ends, and the silver poured into an iron mould. It is stamped as it cools, and afterwards sent to the office to be weighed and registered.

The tael of silver weighs an ounce and a third, which is the general standard of the currency, the

only native coined currency being, as already stated, the copper cash. The tael even is only a weight, the dollars which are used being all of foreign manufacture. When silver is scarce, and it is wanted in the interior for the purchase of silk, the dealers are willing to advance on its usual value in copper cash. The common price of a tael of silver may be 1600 cash, but this price rises and falls according as silver or copper is wanting in the market. Again, Spanish dollars may be in request when bar silver may be plentiful; their relative value is hereby affected, and the latter may decline while the dollar rises. At certain times, when the officers of government have to send large remittances, gold being the most convenient in bulk, there is a run on the market for this metal, and the price at once advances. There is a similarity in this respect between the Chinese money-market and the markets of Europe; the value of money is most carefully watched, and messengers go from bank to bank, and among the money-shops, buying and selling, endeavouring to forestall each other as best they can.

CHAP. V.

MANUFACTURE OF NEEDLES, FILES, BOILERS. — IRON EDGE-TOOLS. — SHARPENING RAZORS. — CLEANING THE COTTON POD. — PIPE-METAL. — IVORY AND WOOD CARVING. — ENAMEL. — FEATHER ORNAMENTS. — BEAUTIFYING POWDER. — WATER-JARS. — ICE-HOUSES. — HATCHING DUCKS. — CARRIER PIGEONS. — FORTUNE-TELLING BY A HEN. — FACTITIOUS FOWLS. — POPULAR ART. — GAS AND SUGAR TOYS. — BARLEY-SUGAR. — THE GINSENG MERCHANT.

NEEDLES have been in use amongst the Chinese from a period probably anterior to their introduction into Europe. It is not improbable, indeed, that Europeans copied the use of the needle from the Chinese. These latter make them from thin steel wire, which is cut into lengths, having one end a little flattened. A row of ten of these lengths is taken, and their other ends sharpened on a wheel with powdered corundum. A workman sitting at his table, with the rows of tens in his left hand, holds them on a small anvil, and with a light drill bores the eye in the flat end, after which they are hardened, and polished with corundum. These needles are short and thick, with the eye end larger than the body, but are easily worked with by the Chinese tailors, who stitch very neatly. It is the curious practice of these tailors when arranging the parts of a dress, instead of basting them with long stitches, to paste them with flour and water till they are sewed in in a proper manner. A man was frequently seen in the tea-gardens selling what appeared to be

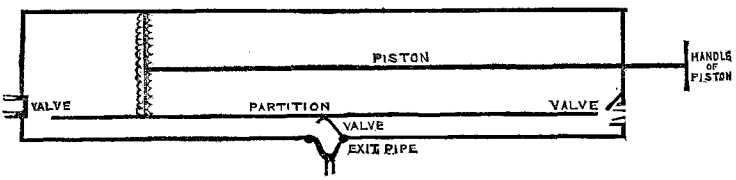
copper needles, which the people readily bought. Wondering how he could make copper needles so hard and sharp, I procured a supply, and, thoroughly deceived, not trying the experiment of breaking them, showed them to my friend Dr. Percy, who, on examination, found they were steel needles, coated with copper by being dipped in a solution of the sulphate.

Files are made of soft steel, a bar of which, the size of the intended file, is placed on an anvil by a boy who sits on one side, holding the steel in his left hand, and in the right a sharp, hard chisel. On the other side of the anvil sits a man who wields a heavy hammer with both hands. The boy places the chisel on the file, when it is struck with the hammer; it is quickly removed, and carried rapidly along the face of the bar, while the hammer comes down with short, sharp blows, until the file is cut over the entire length. It is then examined; extra cuts are made if required, the steel is hardened, and the file is complete. The article is coarse, and not very serviceable; they have usually a handle to each end, which gives an increase of power. The Chinese procure English files when they can, and admire them greatly for their regularity, hardness, and sharpness.

The *iron boilers* in use amongst the Chinese for boiling rice are made as thin as possible, for the sake of economising fuel. A merchant, some time ago, sent one of these boilers to England as a pattern. A large number were cast in Birmingham, which, when they arrived in China, could not be sold, being too thick for the Chinese, who said they required too much firewood to be economical.

Their boilers being so thin are liable to crack and break; but they have a very ingenious plan of repairing them. The tinker who undertakes this branch of art travels with his tools in a basket strung to one end of a short pole, and carried thus across the shoulders. At the other end of the pole is a neatly-made square box, containing several small drawers and the bellows at the bottom. When called to mend a boiler, he sets down his basket and proceeds to adjust his apparatus. The nest of drawers detached from the pole is placed on the ground. These drawers contain some of his smaller tools, files, nails, scraps of thin cast iron from broken-up boilers, little crucibles the size of half a hazel-nut, and various miscellaneous articles. The bellows lie underneath the drawers, and form part of the box, which is very neatly made, the whole being built together, and about fourteen inches high by twelve inches broad and six inches wide. The bellows, which occupy a square of six inches along the bottom of the box, are worthy of a brief description. The exit for the blast is at the side, and has a flap valve, which is attached to a partition inside, extending to within nearly an inch of either end, and about half an inch from the side in which is the exit-pipe; in the remainder of the box, and nearly fitting the space, works a square piston, which is fringed round the edge by feathers, beautifully sewn into a narrow groove. Small holes are bored in the groove to hold the quill of the feather, the free end projecting laterally outwards, thus forming a stuffing for the piston, which now fits accurately and works easy and smooth. The piston-rod is square, and passes through a square closely fitting hole at the end, and has a cross

set handle. A valve at each end of the box opens inwards; the valve before mentioned is directly opposite the inner end of the exit-pipe, on each side of which there is a stop placed as in the diagram.



When the piston is thrust down, the valve at the end is shut, and the valve at the exit-pipe thrown back (see above), so that the air must pass along the partition and through the pipe. When the action is reversed, the blast is driven through the other way.

Having taken his stool out of the basket, the operator fills a small furnace, three inches in diameter and three inches in depth, half full of coal, lights his fire, and attaches the furnace to the bellows by a short pipe; he then brings out a small wooden tripod having no top, on which he places the boiler in an inverted position so as to give him ready access to the upper and under surface, and scrapes the edges of the crack or hole clean, rubbing them with sand to remove any grease. His implements thus arranged, he blows up his fire, and taking three or four of the little crucibles drops into each of them a scrap of iron, and places each of them in the fire. A wisp of straw, partly for fuel and partly to retain the heat, is laid on the top of the furnace over the crucibles. The iron melts in a short time, when he takes a pad of felt and presses one end of it, which has been dipped in ashes, against the hole on the

inside of the boiler, and, lifting one of the crucibles from the furnace with a pair of nippers, pours the drop of melted iron on the edge of the hole, dabbing the metal into its place with another pad of felt covered with ashes. The metal instantly cools, and the hole is so far lessened. Another crucible is taken up and its drop poured against the new edge, this process being repeated till the hole is filled up or the crack mended by the successive drops of iron. He then pours water into the boiler to see if it leaks, when, if found perfect, he rubs off any inequalities, scours the inner surface with wet sand, and hands the mended vessel to the owner. After receiving twopence or threepence, which he charges for the job, he throws water on the fire to save the coals, packs up his tools, refreshes himself with a pipe, and marches off to look for another customer. The remarkable feature of the operation is that, though the apparatus is so small, it is yet so complete as to enable the workman to melt the iron and finish his job in the easiest and most efficient manner. I have often admired the expertness of these men, and have thought theirs was skilled labour of a very high order, but lightly remunerated.

The blacksmiths of China have one peculiar mode of working with a chisel by which they plane off the surface of iron articles, and dress up the edge of hard steel instruments, such as razors and scissors. The chisel is long, narrow, and thin, made of hard steel and sharpened; the handle is a bar of iron with a socket in the middle, in which the chisel is fixed by a wedge. At each end of the bar, which is about eighteen inches long, is a socket or broad ring for a handle, which

rings, and therefore the handles, are at an angle of about 30° with the plane of the chisel. The workman sits astride a small bench, into which, immediately before him, is fixed a broad square staple, with its upper flat part two or three inches above the bench. By his side are several small blocks of wood and wedges to fill up the space in the staple as required by the article he is working on. This may be the blade of a pair of scissors, which has been worked by the hammer to the proper shape, and is now fixed under the staple with a block and wedge. The workman, grasping the chisel by its handles, cuts the surface off the blade and trims it fine and smooth; turning its edge uppermost, he shaves off the steel so as to produce the proper angle, and the blade is complete. A rough razor-blade is treated in a similar manner; the sides are smoothed and trimmed, the edge cut thin, and a shaving taken off the edge itself to sharpen it, when all that remains to be done is a little setting on a hone. The amount of metal which these expert workmen can remove in a brief time with this simple but effective tool is surprising.

Cleaning the cotton pod of the seeds is effected by a hand-mill of very simple construction. A stout firm stool is constructed, above which project two wooden rests for two horizontal spindles of about eighteen inches in length—one of wood, an inch and a half thick; the other of iron, half an inch thick—the ends of both supported on the rests. The iron spindle, which projects a little at each end, has at one end a bar of heavy wood, fixed by its centre, to act as a fly-wheel. The woman sits before this, and with one hand turns a

wheel at her side, which has a strap passing over it to the free projecting end of the spindle. The spindles are very near together, but do not touch. With her unoccupied hand the woman takes up some of the uncleaned cotton in her lap, and, turning the wheel, presents the cotton to the spindle which is revolving from her. The small iron spindle, revolving very quickly, catches the fibre and drags it through, so that the seed is twisted round and round, and all the fibre pulled off. The wooden spindle revolves of course by the friction of the small spindle and the cotton. The seed is left on the woman's side of the mill, and falls to the ground, while the fibre is gathered into a basket on the opposite side.

Pipe-metal is made by welding together pieces of white and red copper, and of white and yellow brass. The "water-pipes" of the Chinese are a sort of hookah, the tobacco smoke passing through water on its way to the mouth. These pipes are very neatly made, apparently of the white copper, or tutenague; this being more costly than red copper, they weld a piece of each metal together and roll them out. Two thin flat bars are first scraped smooth and clean; powdered borax is scattered on one bar, and the other placed on this; several bars are thus arranged at the bottom of a furnace, heated to redness, and the metals are thus welded together, and afterwards rolled out thin, or worked in any other required manner. The Chinese unite a small cast-iron pipe head or bowl to a small brass pipe to fit on the bamboo stem. This is done with borax and hard brass solder, which make a very good junction.

Carving in wood and ivory is all done by the chisel

and the drill. The carver has a large assortment of chisels of all sizes, straight and crooked, flat and curved, and uses them very dexterously in the production of this handiwork, for which China is so celebrated. Two beautiful pieces of carving were done in my house on one occasion, at the request of a merchant who desired a piece of carving as good as could be made. This piece of workmanship consisted of two panels of red Manilla rosewood, an inch and a half thick, two feet long, and one and a half broad. A deep border ran round the edge, and in the centre was a richly-wrought landscape, with numerous figures of men. There were two patterns, one on the surface, and the second cut deep in the wood; both being most beautifully finished, far surpassing in their exquisiteness all other specimens which I have seen. They were very expensive, having occupied two clever artists three years and a half in their completion.

In making open carved work for borders or frames, a piece of hard wood, as rosewood, box, or sandal-wood, is chosen, and when the pattern has been drawn on it, it is fixed on a bench by one end, the other being left free. The carver then drills holes in the pattern in every detached place where the wood has to be worked through. Taking a bamboo bow, short and stiff, and having a sharp angle at the curve,—the slip of bamboo being hard and thick, so as to give strength,—he fastens to one horn of the bow a long piece of brass wire, the greater part of which is also wrapped round the horn. The free piece is passed through a slit in the middle of the bow, to bring it into the centre, and, being notched with a chisel at intervals of a line or two, the end is

passed through one of the drill holes. The horns of the bow being brought somewhat near together, the wire is passed through a slit in the lower horn, and twisted up so as to hold tight, the bow keeping the wire on the stretch. The workman, now holding the upper horn, works it as a saw over the pattern, and very quickly cuts it all out. The wire is then untwisted, passed through another drill-hole, fastened again, and the work goes on. If the wire breaks, a fresh length is unwound from the upper horn, notched and used as before. The carving is finished with a chisel, and this kind of work is speedily effected. I have seen those who were adroit at their business rapidly cut out very complicated patterns, in the most delicate and surprising manner, with this simple instrument, with which they will cut curves or the finest line through the wood, or turn acute angles, with the utmost ease and precision.

Ivory balls.—These well-known articles are cut out of a solid block of ivory. A piece which appears to be sound and free from cracks is placed in the lathe and cut to a round form, and pyramidal holes drilled in every direction from the outside to the centre. A sharp chisel, with its point bent at a right angle, is marked off down one of these holes, to the depth of the internal or smallest ball; at this mark is fixed a stop of wood or bamboo. The ball is placed in the lathe, and the chisel made to work all round these holes, one after another, until the inner ball is cut out, when it is loose. The chisel is then fixed opposite one of the holes, in such manner as to work upon the smooth surface of the inner ball, which is moved about until the required pattern has been drilled and carved upon it. The marking

stop of the chisel is then fixed to the depth of the second ball, which is cut out and carved in like manner. And this is repeated with the remaining balls, the beauty of the carving increasing from within outwards; the external ball being finished last of all, and carved in the most elaborate style.

The Chinese women are fond of *enamel ornaments* for the head, for the frontlet, as well as for the artificial flowers or butterflies which are worn in the hair. These are made of silver-gilt, the edges being slightly turned up, and for the divisions of the pattern a silver-gilt wire is soldered round the parts of the device on which the enamel is to be placed. The enamel is a fine glass or paste of various colours, and is made up in cakes two inches in diameter, which are stamped with the maker's name. A layer of borax being placed on the part of the ornament to be enamelled, the space is covered with the paste mixed with borax and water. The flame of a lamp from the blowpipe is then applied, which melts the borax and fixes it to the metal surface. The work is proceeded with in this manner, using enamels of different colours to complete the pattern.

Another style of ornamentation is with the *feathers* of the blue jay, or of the kingfisher, and other birds of a bright blue plumage. The article to be thus ornamented is of silver-gilt, the pattern drawn out with silver-gilt wire, as in the previous instance. The workman sits at a table with the ornament in his left hand, having before him several small chisels of various sizes and extreme sharpness, and the plume of the feather, cut away from the rib, lying on a stiff paper. At his side is a small charcoal fire, on which a saucer-like cup holds

a very adhesive glue, melted in native spirit, and near his hand are some small hair-pencils. Looking at the pattern, he guesses what morsel of the feather will fit the space, and dexterously, with one of the chisels, cuts it out the exact size and shape; then, taking up with the pencil a little of the glue, he paints over the space on the metal, and with the pencil-point lifts the bit of feather and places it in position, where he presses it smooth with a wood or horn needle. This process is repeated till the design is covered. This style of work is rapidly done and is effective; the gilt and blue give to the ornaments a peculiarly rich and brilliant appearance, which makes them in great request, especially for head-dress and for figures on fans. The delicacy and precision with which the feather is cut and adapted to its place are admirable, and show the patience and accuracy of the Chinese in works of this character.

Kwong-fun, or beautifying powder.—A chalk-like cake was met with at Shanghai, which from its appearance and properties was at first taken for chalk, which is found in some regions of the country. This substance was evidently carbonate of lime, and, though softer than chalk, could be written with as easily. A portion of it was sent to England, where my friend Mr. Hanbury found it composed of a crystalline material, but not of shells at all. I then remembered having noticed a sort of mill with a large quantity of white earthy powder lying about, and on inquiry found that white marble was ground there. This marble is brought from a range of limestone hills in the interior, and is cut (at this mill) into slabs for tables, tiles for bathing-houses, flat dishes for flowers, and for various other uses. (The Chinese

do not polish marble; they rub it very smooth, but seem to be ignorant of the art of polishing.) At the mill, the lumps of marble were first broken by a hammer, and then thrown into a circular trough filled with water, in which revolved two perpendicular stone wheels which were set in motion by a buffalo. The material when ground was shovelled out, and placed on a stone platform on which flat-edged stone wheels were turning, where it was ground very fine. It was afterwards levigated in a succession of tubs, the sediment in the first two of which was returned to the mill; that in the others was cut out and dried. The coarser material is used to whiten mortar and make whitewash with size; the finer sediment is placed in moulds, and, when dry, packed in chip boxes, and sold for a farthing the cake of two or three ounces.

This powder is used by ladies to whiten the complexion. It is not merely rubbed on, but worked into the skin, a string in the shape of "a cat's cradle" being used, see-sawing backwards and forwards till the desired whiteness is produced. The powder of medium quality is used to give the whitish gloss to rice, a cake of the chalk being thrown into the mortar where the rice is pounded after the removal of the husk.

The Chinese have a method of *taking impressions from stones* on which inscriptions have been engraved, as follows:—The face of the stone is slightly damped, and then covered smoothly with a sheet of thin cotton paper which is rather tough in texture. The paper is then moistened. The workman sits before the stone, and carefully impresses the paper. A piece of felt a few inches long by two inches broad, and a tenth of an

inch in thickness, is laid at the upper right hand corner of the stone, and passed gradually over the surface, the workman tapping it gently with a small hammer of light wood. If the stone be perpendicular, the felt is moved along the stones in vertical lines; if lying flat, the felt is passed horizontally. This stage of the work requires great care on the workman's part, who has to manipulate the entire surface accurately, without tearing the paper, or injuring the stone by hard blows. Some hours are occupied over a large inscription, and when this preparation is completed, the paper is found to be driven into all the marks on the stone.

A rubber, made of a thin strip of wood, covered on one side with the fibres of the coir palm, and charged with melted wax, Chinese ink, and water, is next drawn gently across the paper till its smooth surface is blackened, the impressed portion remaining white. A wire basket filled with burning charcoal is held near the stone and passed over the surface to dry the paper. The paper is then removed, and if the work has been properly performed presents a perfect fac-simile of the impression on the stone.

Many of the common acts of life exhibit ingenious and simple plans for economising labour and saving trouble. Outside the large shops or halls, where the people assemble to pass a social evening and drink tea, is a number of water jars of large capacity, which are filled daily from the river. This water, heavily charged with sand and clay, is cleared by alum mixed with it; but after a few days the bottoms of the jars are covered with a thick coat of mud. This must be removed, and as to draw off the water would be too troublesome

a process, the following simple plan is adopted:—A thick bamboo is chosen, all the joints are cleared out, except that at one end; by the side of this, a small hole in the tube, which can be readily closed by the thumb, is made; the thumb is placed on this hole, and the bamboo, with the open end downwards, is passed through the water to the bottom of the jar. The closed end preventing the escape of the air, of course no water can enter the bamboo, whose open end is in the liquid mud of the jar. When the thumb is removed the air escapes, and the mud is forced up the tube, upon which the thumb is replaced, and the bamboo withdrawn filled with mud. This is emptied by the raising of the thumb again, and the process is repeated till the jars are clean.

During winter, in the north of China, *ice* is collected in large quantities, and carefully stored. The ice-houses in Shanghai have walls constructed of mud, about twelve feet in thickness, the roof is thickly thatched with rice straw, and the door well covered over at all times. Ice is used by the Chinese almost exclusively for the preservation of fish, which are sent in large quantities to the interior. The boats have a thick wooden cover, and are lined with straw; ice and fish are stowed in alternate layers; ice is laid on the top of all, and the boat filled up with straw. In this way the fish are preserved to the end of the journey inland.

Ice is sometimes used when a member of a wealthy family dies and it is wished to delay the burial a few days. If the weather be hot the body is laid on a plank, and two or three hundred weight of ice placed

on the floor underneath, which as it melts is renewed, and keeping the body at a low temperature hinders decomposition. I have also seen ice in large quantities thrown over the bodies of persons who have died by violence, and which could not be interred till after the coroner's inquest.

In the vicinity of most of the cities are large establishments for the *hatching of ducks*. These houses comprise a suite of long, low rooms, with several offices attached. The country people, in the spring and summer months, bring large quantities of eggs which are purchased at a very cheap rate. These are put in flat baskets into a sort of fireplace made of brick and plaster, open at the top but closed below, much like a recess for a boiler. Below the open space is a very small charcoal fire to warm the mass of brick. When the place is warm enough the basket of eggs is lodged within, and covered over by a thick plaited straw pad to retain the heat, and after a day or two the basket is removed to another similar recess, which is slightly warmer. The eggs are turned over once each day, and carefully excluded from cold air or wind. After the required number of days, close upon the time of production, they are taken out of the baskets and laid side by side on a large table. This table is about thirty feet long by fifteen wide, and covered with cotton wadding. When the eggs, to the number of 1000 or more, are arranged, they are covered with a thin cloth, and over this one or more thick cotton quilts are placed. The removal of these as soon as the ducklings are found ready to break their shells, reveal an extraordinary scene. In all directions the little creatures are working

themselves free, causing a curious crackling from the fracture of the shells. An attendant watches the table day and night to remove them as they emerge, all folded up and apparently very weak, but speedily scrambling over the other eggs. They are removed to a basket in a warmer room, and fed by and by with flour and water. In a day or two their down is grown sufficiently to cover them, when they are sold to persons who come from the neighbourhood periodically to buy them. The price for a young duck is thirty cash, or about a penny; the drakes sell for a little less, not being considered so useful as the other sex. These establishments, which require great care, are well conducted, and are profitable to the proprietors, though these occasionally suffer great loss from sudden changes of weather; a cold, northerly wind kills the ducklings in great numbers. The process is carried on only during the spring and summer, and the house is used as a lodging-house for the rest of the year.

In Shanghai, the ducks paddle about for their living in the canals and ditches. On the Canton river large flocks of ducks are kept in spacious boats, called "duck boats," at the side of which a sloping plank leads as a pathway to the water. In the morning the ducks go down this plank and swim in the fresh water river, where they find an abundance of food; in the evening the owner of the boat, by knocking on a board, makes a peculiar sound, which they learn to recognise. As soon as they hear this sound the ducks hurry, and scuffle, and fly to get into the boat, as the custom is for the last duck to be beaten with a bamboo flapper. The object of each duck is therefore to get home, and

not be the unfortunate last comer that is invariably beaten. The early return of the whole family is thus ensured when the recall is sounded.

Carrier pigeons are much used by the Chinese for sending messages from town to town. Near the house I once occupied at Shanghai, was a resort where these birds were kept: they seemed of the same breed as the carrier pigeons of England, but were somewhat smaller. Their keepers bestowed great care upon the birds, and devoted their whole time to superintending them. They were sent in baskets to the place whence the message was to come, and the persons in charge took the greatest pains to preserve them from injury. In this, as in all other cases where the Chinese have birds to care for, they make personal friends of them, and nurse and attend to them day and night.

The pigeons are employed to carry from various places the news of the markets, as from Su-chau and Han-kau to Shanghai. The first and last-named of these are eighty miles apart; frequent business quotations are sent backwards and forwards from Shanghai, as to the arrivals of junks and cargoes, the amount of imports, and such like items; from Su-chau as to prices and sales. The chief piece of information is the value of the dollar in copper cash for the day. There are regular offices where bankers and money-changers meet at certain hours in the day. A broker mounts a table and offers to buy or sell dollars at a certain price. The standers-by bid more or less, according to circumstances, bidding against each other, at times in the midst of much excitement. The scene is something like what is witnessed in the English Stock Exchange, for although the

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bidding may not rise by more than a cash or two, yet, if the transaction be for a large amount, much money is lost and won by the speculation. The result of the sale is at once sent off by pigeon to Su-chau, whence messages are returned as to the state of the exchange in that place.

The pigeons are also in great request at the time of the literary examinations, as stated in a previous page. As soon as the lists are published the desired information is sent to the keepers of the pigeons, who transmit the message immediately. The messages, written on a slip of thin, stiff paper, are rolled up and tied to the leg of the bird, so as not to incommode the flight. Three hours is said to be the time required for the eighty miles of distance between Su-chau and Shanghai.

The tea-gardens of the Ching-hwang-miau * are frequented by men who profess to *tell fortunes* by the aid of a hen. These men carry on their profession in the streets of the city also, where there is space available. A mat is spread on the ground, with a stick fixed at each corner, around which a strip of cloth is cast to form an enclosure for the fortune-teller and his hen, which is in a small bamboo cage. By his side is an open box containing a number of very small rolls of paper with sentences, or single characters written on them. In front of him is a long row of fifty or sixty small pasteboard envelopes, which also hold single characters, or the divination sentences. A little board painted white, for writing on, and the "inkstone" and pencil are at hand ready for use. An inquirer who wishes to

* The "temple of the Guardian Deity of the city" in Shanghai.

consult him, squats down on his heels outside the enclosure, pays three cash (half a farthing) and tells his story, stating what he wishes to know. He is told to pick out a roll from the box, which having done, he hands it to the man, who unrolls it, and writes its contents on the board. He then opens the door of the cage, and the hen marches forward to the row of envelopes; after peering over them inquisitively, she picks out one and lets it fall to the ground. A few grains of rice are thrown into the cage, and she returns. The envelope is opened, and the characters inside it also written on the board, from the two inscriptions on which the consulter's prospects are announced. The hen is regarded as the arbiter of fate; incapable of moral motive in the selection of the roll; and is therefore supposed to give the decree of fate, without the possibility of collusion, or misinterpretation of any kind.

The public are sometimes asked to try the skill of the bird in selecting any envelope from the row which they may have previously chosen. This I have often seen done. A person takes an envelope, and inserting a scrap of paper, returns it to the row. The man shuffles them all, and lays them out in a line, edge uppermost. Mrs. Hen then steps forward, and, without the slightest hesitation, picks out the very envelope. This trick will be done for the moderate charge of one cash. The performance of the bird is curious, as showing what patience has done in training her to her part, which she fulfills with a business-like air that is very amusing, but always looking for the rice at the end of the process. The more customers the more rice.

Passing one day through the tea-gardens just named, I observed a man from the Shan-tung grain junks exhibiting some kind of curious fowl to a crowd of admiring people. He had fixed a number of sticks in a circle into the ground, attaching them by a cord, with which to keep the throng at a distance, who stood gaping in amazement at the strange bird. Crossing over the cord to see what the animal was, it appeared to be of some remarkable breed, combining the peculiarities of a gallinaceous cock and of a common duck. On getting near, however, I found it to be a duck, dressed up in the skin of a cock, with the feathers on. This had been neatly drawn on like a jacket and trousers in one, and partly sewn, and partly glued to the feathers of the duck, so as to look from a distance like a cross between a cock and a duck.

"Far off stood the merry troop,
Something in their midst concealed;
Till an opening in the group
Their mysterious scheme revealed."

Some of the common class of fortune-tellers eke out a living by a style of drawing with their finger-tips and nails. The skill and adroitness of these men I have watched with much admiration. They sit on the ground cross-legged, with a bowl of indigo and water, in which is a pad of cotton cloth by their sides. They hold on their knees a small board painted white, on which with the pad, they make a few dabs of the blue colour; holding up the board, with a sharp puff of wind from the lips, they blow the colour in various directions; then trailing the colour here and there with the tips of their fingers, and giving it an occasional fillip

with their nails, they shape various birds, either sitting or flying, according to fancy. The eyes of the birds are formed very neatly by placing the finger tip on the paint where the eye is to be; removing it quickly it gathers up the colour, and leaves the shape of a most perfect eye. A favourite sketch of theirs is of two or three swallows flying round each other; the different positions being very nicely drawn. Another sketch, is of stags and deer feeding in a wood: all done with remarkable quickness, the most surprising thing being the simple touches with the finger that completed the figures. The bystanders throwing a few cash to the artist, he would wipe off his sketch with a cloth, and begin again for a new set of spectators, who never tire of watching his pretty performances.

In the streets of Shanghai, pedlars were often seen with a small box open at one side, and placed on a stand. In the box was a lamp, over which the pedlar held by a wire a piece of clay the size of a large olive. In a short time a jet of gas escaped from one end through a hole in the clay, and a light being applied, it would burn for some minutes, to the surprise and amusement of the bystanders. These pieces of clay the man sold for a few cash, at about the price of two for a farthing, and they were bought up readily. Procuring one of them, it was found that a piece of resin formed the centre of the little ball; this was covered with clay, through which at the smaller end, a hole was pierced to the resin, and a shorter hole in the side for the insertion of the wire by which to hold it over the lamp. The heat would of course cause the resin to evaporate, and the gas thus formed, passing through the hole at

the end, could be easily ignited. The man seemed always to find a ready sale for these articles.

There is a particular sort of thin sugar-toy much favoured by Chinese children. A man appears in the street, striking a bamboo and uttering a peculiar call, which the children know, and brings them round him. He places a tall stand on the ground, and upon it the basket with the usual nest of drawers, in which itinerant artisans carry their tools. He has a little furnace in the basket, on which is placed a copper bowl half filled with thick syrup, which when cold is of the consistence of toffee, or hardbake, and of this material his wares are made. There is also a number of hollow moulds made of boxwood, very thin, fitting accurately, and open at one end. These are for figures of various fruits and flowers, birds, animals, the melon, the calabash gourd; they are steeped in oil, and do not afterwards require to be greased for use. Placing the two parts of the mould together, the man takes a small tube or pipette of copper or brass, lifting on one end as much of the melted sugar as he thinks requisite; and, blowing this like a glass-blower into the open end of the mould, he causes the sugar to cover its sides in a thin flake. This cools instantly; the mould is opened, the pipette removed, and the end of the sugar twisted so as to close the orifice, and the article is sold for one or two cash, according to its size. These toys are very prettily shaped, and are very acceptable to the juveniles.

The Chinese are very partial to a sweetmeat which resembles barley-sugar. Barley, malted, is bruised in a mill and boiled in water, which when strained leaves a

sweet wort. This is boiled down with sugar till it becomes a thick syrup, then mixed with rice flour till stiff, and a lump of it taken and cleverly dealt with, by the aid of two sticks. One of these is fixed perpendicularly in a heavy stool or the corner of a table; the other stick is held in the hand. The lump of barley-sugar is pulled out with the hands, its centre cast over the fixed stick, and with the free ends thrown round the loose stick, it is pulled out still more. The maker now by a clean twist of his hands doubles it, throws the centre again over the fixed stick, and pulls it out for some time longer. By this means the mass becomes thoroughly mixed and stringy, and when it has attained the proper consistency and stringiness, it is rolled out on the table, cut into pieces an inch square, and sold to customers. There is always a crowd waiting for the much-desired confection.

Ginseng comes chiefly from Corea and Tartary; that from the former place being the more valuable. It is the dried root of the Panax Quinquefolia, which grows wild in the districts where the root is collected. It is a curious fact that it will not bear cultivation. All the Ginseng gathered in the empire, is imperial property, and sold to those who have the privilege of dealing in it, at its weight in gold. Large quantities are imported from the United States, but this is not esteemed so highly as the native growth of the root.

The root is generally divided into two or three fingers, connected together at their base; it is semi-transparent, and ought to be entirely free from stringy matter. It is a mucilaginous, carminate tonic, with a bitterness something like that of gentian root, but milder, and has

a sweetish bitter taste. This tonic is much esteemed by the Chinese, who consider it a specific in all cases of debility, and in fact, give it as a restorative in most diseases. Its high price, however, renders it a remedy used only by the wealthy, who frequently have recourse to it when other specifics fail.

Presents of this root are frequently made; and accompanying the medicine is usually sent a small, beautifully-finished double kettle, in which the ginseng is prepared as follows. The inner kettle is made of silver, and between this and the outside vessel, which is a copper jacket, is a small space for holding water. The silver kettle, which fits on a ring near the top of the outer covering, has a cup-like cover, in which rice is placed, with a little water; the ginseng with water in the inner vessel; a cover placed over all, and the apparatus put on the fire. When the rice in the cover is sufficiently cooked, the medicine is ready, and is then eaten by the patient, who drinks the ginseng tea at the same time.

A ginseng merchant of my acquaintance, who had a small office at a goldsmith's shop, near the great east gate of Shanghai, has often exhibited to me his stock of the valuable root. He was a man of literary tastes and ability, and by profession a physician, but gave his whole attention to the sale of this article; his entire stock of which was contained in two strong boxes. When I have called to see him, he would first order tea, and after a little time spent over this in general conversation, would ask if "I wished to see his stock of the root?" On replying in the affirmative, he deliberately fetched his keys, and calling an attendant to

shut the door, so that neither strangers from the outer shop, nor damp air, might enter his clean and beautifully-furnished sanctum, which was also thoroughly dry, proceeded slowly to unlock the boxes. Opening the outer box, he removed several paper parcels, which appeared to fill the box, but under them was a second box (or perhaps two small boxes) which, when taken out, showed the bottom of the large box, and all the intervening space, occupied with more paper parcels. These parcels, he said, "contain quicklime, for the purpose of absorbing any moisture, and keeping the boxes quite dry;" the lime being packed in paper for the sake of cleanliness. The smaller box, which held the ginseng, was lined with thin sheet lead; the ginseng, further enclosed in silk wrappers, was kept in little silken-covered boxes. At last after opening many receptacles, the actual medicine was displayed, each root sewn with silk to its silken wrapper. Taking up a piece, and requesting his visitor not to breathe upon it, nor handle it, he would dilate upon the many merits of the drug, and the numerous cures it had effected. The cover of the root according to its value, was silk, either embroidered or plain; cotton cloth, or paper. Some of the root was worth not more than six to twelve dollars an ounce; other portions rose in price, to the most expensive, which was of the enormous value of 300 and even 400 dollars an ounce. This latter the merchant prized of course very highly, and allowed only a glance at it, as he said "it might be injured by exposure to the air." The inspection finished, each root was carefully returned to its place in the box, and this to its position on the lime; the parcels of the latter were readjusted, the outer

box locked; and my friend, with a look of relief, would sit down and continue his conversation.

This man, who had a great repute for exceedingly good ginseng, was well known by the common dealers, who regarded him as an authority in his line of business. When asked as to the amount of his trade, he replied that he sold a good deal of the commoner kinds; and every now and then a little of the higher-priced article to government officers and wealthy persons, who gave it to their wives when pregnant, supposing that it marvellously purified the blood and invigorated the system. Another cup of tea, and thanks for the courtesy, would close the interview.

I occasionally took visitors to this merchant's little office, to see his mode of business, and more especially to see himself, as a good specimen of the rich, and quiet, and respectable Chinese tradesman—not eager for crowding customers, but depending on his reputation for the sale of his goods.

CHAP. VI.

STATE OF MEDICAL SCIENCE IN CHINA.—DRUGS.—QUALIFICATIONS OF THE MEDICAL MISSIONARY.—ACCOUNT OF THE MEDICAL MISSIONS TO CHINA. —DR. MORRISON.—DR. PARKER.—DR. HOBSON.—HOWQUA, THE HONG MERCHANT, AND THE HOSPITAL AT CANTON.—OTHER HOSPITALS.

In the following papers on medical missions, it is not intended to give a history of the labours of all who have carried out this Christian design in China; but rather, to offer in brief detail some views of the subject which the writer has derived from his own experience. At the same time, he would accord all honour to those who have preceded him, as well as to those devoted labourers of different sections of the Church of Christ, whom he is rejoiced to have had as colleagues. Animated by one sincere desire, they sought, by the blessing of God, to make their knowledge serviceable in helping forward the great cause of missions to the heathen.

Various travellers have found the possession of medical and surgical knowledge of great value in the prosecution of their undertakings. The relief they have afforded to sick natives, both of high and low degree, has often brought them help in their progress which they would not otherwise have received. The records of our most enterprising adventurers in every clime sufficiently attest this fact.

The same auxiliary has been employed in the missionary enterprise; and whether we look at the icy regions of Greenland; the burning plains of Africa; or the broad valleys and populous cities of India; at the green and fertile islands of the Pacific, or the commercial ports of the sea-board of China; in one and all of these regions the missionary has found the way to the hearts of the people most speedily who has been able to give relief from their bodily infirmity. In many of the early missions, the first step towards winning the confidence of the natives, has been the judicious use of this means.

Neither apology nor eulogy will be needed for the science and practice of medicine. The liability of man to disease has called forth his best attention to the relief of those who are suffering. However indefinite and uncertain are many of the plans proposed at various times, yet great is the benefit conferred on afflicted humanity by the healing art.

In Europe, much talent and energy have been spent in ascertaining the true principles of medicine and in improving its practice; and in consequence, the advance in every department of medical science has been both remarkable and rapid. In heathen lands but little has been done for medicine as a science. The functions of the body being scarcely understood, the application of remedial agents is necessarily very imperfect, and the practitioners of medicine are held in little repute.

This is especially remarkable of China, in which, though a great, populous, and civilised country, with a people largely educated, medicine has not yet been studied to any purpose. There is no recognised system of teaching

medicine; and no diploma or certificate of any kind is required. When any person, as for instance an educated man, intends practising medicine, he will read such books as he thinks most desirable, more especially any manuscript books he can procure, and which contain the results of the experience of any old practitioner. Books of this kind are carefully retained in families; and if a man can say in his card that he is a physician of three, four, or five generations, he is supposed to possess the ability and experience accumulated by his forefathers. Many unsuccessful scholars take to medicine; and thus, for the most part, the physicians are men who have received a good education. The practice of medicine in China is subdivided into various branches: one man will profess to treat general diseases, as fever, rheumatism, &c.; another, the diseases of women; another, the diseases of children; while another confines his attention to affections of the bowels; and so on.

The practitioners of surgery, or those who attend to *external* diseases, are of a lower grade than those who treat *internal* affections, chiefly because surgical manipulations are little understood. None but the most trifling operations are attempted, and, in fact, small attention is paid to this branch of practice, because the relief afforded is so insignificant.

The physicians, thus basing their practice in great degree on experience, treat many of their cases very judiciously. Though their theory of medicine is imperfect, yet they have learned the use and properties of many medicines; they have seen the propriety of various forms of diet: being accurate observers they

can carefully trace out the history of their cases, and finding certain plans of treatment successful, they adapt their action to the disease empirically. Though ever in the dark as to their principles of treatment, they are by this means frequently successful, and many of them obtain a good reputation, and are sent for to see patients at a great distance. When a person is sick his friends consult some physician, who examines the case, states his opinion and his plan of cure, perhaps, on the first or second visit; and the case is left in his hands for a day or two. Should it not follow the course expected, another practitioner is sent for, and sometimes six or seven physicians may successively take charge of the patient. They are called in one after another, until the friends are satisfied with the account given of the case, when perhaps it will be left altogether in the care of one person, who is again changed if recovery does not speedily ensue. The patient and his friends are very whimsical, and uncertain in their adherence to one medical attendant.

Some practitioners confine their remedial skill to the use of acupuncture, which is very dexterously performed. It is largely resorted to for rheumatism, deep-seated pains of all kinds, sprains, swellings of the joints, &c. Others adopt the moxa as their panacea, which they apply very freely to all parts of the body, and often with much benefit.

In their theories the organs of the body are allied to various material substances, as earth, metal, stone, air, water. These have certain distinctive qualities, hot, cold, moist, dry, windy: diseases also have these same qualities, partly in their own nature and partly

attributable to their exciting cause. Medicines again have these various qualities, and are classified accordingly. The object of the practitioner is first to find out the class of the disease, and then out of the appropriate class of remedies he chooses those that he thinks best adapted for the case thus ascertained or supposed. The pulse helps him much in arriving at his conclusions.

To this great attention is paid, and its indications are divided into an almost endless variety, which are for the most part fanciful. It also has its fine peculiarities, and the same routine is practised in applying the condition of the pulse to the diagnosis of the case, and in the adoption of the remedies. Much attention is paid to the relative condition of the pulse on the two sides of the body, and in different regions of the system.

Diet is carefully regarded, and strict rules are laid down for the use or disuse of certain articles, as having a heating or cooling, a dispersing or congesting tendency.

The chief consideration regarding both medicine and diet, in the Chinese practice of physic, is the adaptation of the various properties of drugs and food — as heating or stimulating, cooling or dispersing, moistening or drying — to the character of the disease. These are the things chiefly looked to, but these properties are frequently assumed in a purely arbitrary way.

In advocating medical missions to the heathen, as a desirable auxiliary in spreading the Gospel, I shall not

be supposed to undervalue in the least degree the supreme necessity of any appropriate means for the enlightenment of the heathen mind. The preaching and diffusion of the inspired Word amongst the people, and the training of the young in the knowledge of its sacred truth, can never be superseded.

Various instrumentalities have been found valuable, not to say necessary, for the accomplishment of this great end. Some men are better fitted than others for certain spheres of labour in the mission field, and it is well that such should follow the direction in which their talents and their training lead them. Any one thus taking up his particular branch of labour, must needs enter upon it in the spirit of prayer, and pursue it with all fidelity and earnestness. Without these little good is done, either in the church or the world, while one great means of success is found in continuous, devoted labour.*

I desire, therefore, to plead the cause of medical missions, believing that great good may be done in heathen lands by combining the work of the surgeon with that of the preacher and teacher. In China much success has been already secured, and the more fully this union is carried out the more will its utility be demonstrated. In opening a new station where foreigners have not previously resided (as was the case at Shanghai when Dr. Medhurst and the writer proceeded to that city in 1843), it is very important to adopt a course which will speedily win the confidence

* In no field of missionary toil can the harvest be reaped, where much labour has not been first expended in the painful tillage of the soil, and the careful, patient and prayerful sowing of the seed.

of the people. No course has been found more likely to effect this than the opening a dispensary and a hospital, where the relief which is afforded shows at once our object to be the welfare of those about us. The influence of a mission thus begun is immediate, and remains permanently in the memory of the people. I believe a similar result would follow the plan were it tried *in India*, and medical missionaries sent there as the pioneers of Gospel work. Our missions would then be more firmly established, and the work be yet more successful.

The decided opinion to which a somewhat extensive experience has led me, is that medical missionaries should be *laymen*, — surgeons, not ordained ministers. I believe it a great mistake to suppose that an efficient medical missionary can be made out of a minister, by giving him a few months' attendance on lectures and hospital practice; then, because he is going to practise only among the heathen, allowing him with but a slight examination to obtain a diploma and to think himself henceforth a qualified surgeon capable of assuming any responsibility.

I have seen very serious consequences result from this more than questionable proceeding. Men venture to undertake severe cases, and suddenly find themselves in a position of grave responsibility, where life and death depend on their action. They are utterly unable to cope with the difficulty, and valuable lives may thus be perilled or even lost. Any one, even the most highly-accomplished surgeon, may, and often does, make mistakes, but that can afford no apology for a person

who is wholly inexperienced taking upon himself the duty of administering to every case that comes before him. Such an one must do more harm than good, and, besides, bring odium both on himself and his religion which he would commend to the people.

The practice of having ordained medical missionaries is one which cannot be too highly deprecated. It is quite true, that a missionary may be placed in circumstances far from medical help, where, in his family, among his friends, or the heathen around him, accidents and diseases occur, when he is imperatively called upon to act. In such emergencies he must, of course, do the best he can, and if he be one of those men who have an aptitude for picking up medical and surgical knowledge, he may very usefully apply what he has thus acquired.

Such an one I have often assisted to the extent of my ability, as deserving of encouragement in these circumstances.

If a missionary, going to a place where he cannot call in medical aid in case of sickness, be supplied with a good medicine-chest, and one or other of the dictionaries of domestic medicine (as Macaulay's), or any other work on its practice, some of which are well and simply written, and use his own common sense and observation upon the course of disease and the powers of various medicines, he will be able to do much good. The course objected to is that of the man who, after a brief attendance on lectures and a slight examination, is allowed to regard himself as a medical missionary. The medical and surgical knowledge thus acquired is of small practical use: it does not qualify the possessor of

it to relieve disease, but often leads him into danger, because from his ignorance he is induced to undertake what he is unfit for.

The natives soon find out if a man knows his work; they will trust one who can help them, and, speedily ascertaining how far he can be trusted, will act accordingly. A missionary should not, therefore, *profess* to do that for which he is not qualified; without *professing to be a surgeon*, showing a readiness to aid every one to the measure of his ability, he may confer great benefits upon the heathen. These know how to value the relief afforded to the sick, and to appreciate the sincere desire to give it on the part of the missionary-teacher, while the pretender they as easily see through, and his services will remain unsought.

I should therefore recommend in every case that the medical missionary be a layman, and sent out on an equal footing with the ordained missionary. For the same person to attempt both these lines of duty is to insure more or less of failure in the one or the other. Either is usually quite enough to engage the attention, and a diligent missionary will find the pursuit of either occupy all his time: devoting his energy to his medical and surgical practice, he will preach but poor sermons; on the other hand, sedulously preparing himself for dealing with the heathen mind, he will but indifferently perform his hospital work. He may expect to be useful as he earnestly does the "one thing" for which he is more especially fitted.

This, of course, will not prevent a medical missionary from the accomplishment of much general mission-

ary work. His office is that of a missionary: he will take every opportunity of Bible distribution, and avail himself of the occasions, peculiarly his own, of speaking to his patients privately. He will have services for their instruction, and will employ every means of diffusing a knowledge of the Gospel.

The remarks which have been made respecting half-educated surgeons apply with equal force to half-educated ministers, either of whom may be highly useful in his own department of labour, but is spoiled as he endeavours to combine both pursuits, succeeding only in presenting in himself the objectionable compound of "a medical divine," — an incongruity as great as though a tradesman should notify on his signboard that he was a gardener as well as a watchmaker. In both instances the practical result would be much the same.

Since the beginning of this century several attempts have been made to confer on the Chinese the benefits of European medicine and surgery. The medical officers of the Honourable East India Company's Civil Service have been fervent in their endeavours, and the names of Pearson, Livingston, and Colledge are still had in honoured remembrance for the good which they effected during their residence in China.

In 1805 Mr. Alexander Pearson introduced the practice of vaccination at Canton, and before he left the country in 1832 he had the satisfaction of seeing his efforts so much appreciated that a large vaccine institution was established in that city. A native surgeon, whom he had instructed in the art of vaccination, superintended the institution, which is still

maintained with success. During Mr. Pearson's residence in China he vaccinated very many. Sir G. Staunton translated a tract on the subject for Mr. Pearson, which was extensively circulated and was very useful. Several editions of this tract, with alterations and improvements, have since, at various times, been issued. The invaluable blessing it refers to has proved so great a boon, that to have been the means of its introduction into so populous a country is no small honour. The name of Alexander Pearson will therefore be associated with those of the benefactors of mankind.

In 1820 the Rev. Dr. Morrison, in conjunction with Mr. Livingston, surgeon to the H.E.I.C., opened an institution for the relief of afflicted Chinese, and for the purpose of gaining some knowledge of the native mode of treating disease. This dispensary was conducted by native practitioners, under the superintendence of these gentlemen, and many patients were benefited during the period of its continuance.

In 1828 Mr. Colledge, surgeon to the H.E.I.C. factory, opened a hospital at Macao, which was supported by the liberality of the Company and private merchants, and was conducted by him with most encouraging success. The institution became the topic of conversation throughout the provinces; praises and gratitude were heaped upon the manager by the beneficiaries and by their friends.

Mr. Colledge gave his attention chiefly to *diseases of the eye*, in the treatment of which he found the native practitioners particularly ignorant; and during the five years in which his other duties permitted him to con-

tinue the institution, more than 6000 Chinese were gratuitously relieved. He urged upon the various missionary societies the desirableness of employing medical missionaries as pioneers in their Christian work, and several papers which he wrote for this purpose had considerable influence in directing attention to the subject.

The idea of making the practice of medicine an auxiliary in introducing Christianity to China, was first practically adopted by the American Board of Commissioners for Foreign Missions, and the Rev. Peter Parker was sent out with that view. After some time, which was spent in the acquisition of the language, he opened an ophthalmic hospital in Canton, in the year 1835. Here his labours were attended with an amount of success which his most sanguine hopes had scarcely anticipated. In one of his reports Dr. Parker writes: "It was after long effort that a place was found for a hospital, and when at length a suitable building was rented and previous notice had been given, on the first day no patients ventured to come, on the second day a solitary female afflicted with glaucoma came, the third day half a dozen, and soon they came in crowds. It is difficult to convey to a person who has not visited the scenes of the hospital a just idea of them. He needs to be present on a day for receiving new patients, and behold respectable women and children assembling at the doors the previous evening and sitting all night in the street, that they might be in time to obtain an early ticket for admission. He need behold in the morning the long line of sedans, extending far in every direction; see the officers with

their attendants; observe the dense mass in the room below, stand by during the examination and giving out tickets of admission to the hall above, where they are prescribed for, urgent cases being admitted at once, while others are directed to come again at a specified time. . . . Great numbers of patients are thus relieved every day, exhibiting more and more the confidence placed in the physician. . . There have been applicants from other parts of the country as well as from this vicinity. Numbers from other provinces, from Nankin and Pekin, who were resident at Canton, have called; several tea-merchants from the north and their friends have been healed."

Much interest was exhibited in the labours of Dr. Parker by the foreign community, and by passing strangers, who contributed most liberally to the support of this useful institution. In 1836 some excellent suggestions were published for the purpose of drawing attention to the subject of "gratuitous medical relief to the Chinese, in order to facilitate the formation of a society for this special object, and to give more efficiency and permanence to the work of future labourers." These suggestions contained the following statement: "Viewing with peculiar interest the good effects that seem likely to be produced by medical practice among the Chinese, especially as tending to bring about a more social and friendly intercourse between them and foreigners, as well as to diffuse the arts and sciences of Europe and America, and in the end introduce the Gospel of our Saviour in place of the pitiable superstitions by which their minds are now governed, it was resolved to attempt the foundation of

a society to be called 'The Medical Missionary Society in China.'

This society was formed, and the ophthalmic hospital at Canton, taken under its patronage, continued under the superintendence of Dr. Parker without interruption until June 1840, when the disturbed state of affairs in China compelled it to be closed. Up to this time, however, from the opening of the hospital "upwards of 9000 individuals had been relieved of their sufferings, their gratitude and confidence rather increasing than diminishing." A visitor remarks: "It is a pleasure to go to the hospital and witness the confidence manifested by the inmates. Those who have received some special benefit often seem to want language to express their gratitude. In some instances the blind of a distant village have united and chartered a passage-boat to come to Canton, and have waited four or five days for the hospital to be opened for the admission of new patients." Surely the confidence denoted by these expressions of gratitude, and gained by such disinterested and useful efforts, can never be wholly lost. During the years 1836–37 Dr. Parker continued the ophthalmic hospital at Canton with growing success; patients of all classes and from places at a considerable distance constantly resorted to him. The reports published for this period (see "Chinese Repository") contain the grateful acknowledgments of both rich and poor, — gentlemen of official rank, others of literary standing, as well as native merchants, artisans, and other classes of the people. From July to October 1838 Dr. Parker spent at Macao in opening as a hospital the house which had been purchased by the

society for that purpose. In this brief period 700 patients received treatment, and displayed the same confidence and eagerness as had been evinced at Canton. Owing, however, to the want of a medical officer to conduct this institution, it was shortly closed on the return of Dr. Parker to the latter city.

In January 1839, the writer of these pages, connected with the London Missionary Society, arrived in China, and the hospital at Macao was placed under his charge. It had not been long open when the measures of the Chinese Government against the English compelled him to again close it and to leave Macao. This was in September 1839, and, the hospital was not again opened until June 1840; the interval being passed at Batavia, in the study of the language under the Rev. Dr. Medhurst. The occupation of the island of Chusan in that year gave opportunity of beginning a hospital at Tinghai, the capital of the district, whither I proceeded at the end of August with that object. At the first establishment of the hospital the inhabitants did not understand its purpose, and were disinclined to apply for medical relief. The attention paid to some sick that were met in the streets, and explanations made to others that medicine would be given for their ailments, had the effect of removing this feeling of doubt, and shortly the utmost eagerness was shown in seeking for assistance. Great numbers resorted to the institution, not only from the remote parts of Chusan, but from various places on the mainland, trusting themselves in the hands of the foreign surgeon with the same confidence as in those parts where hospitals had been established for a longer

period, and where a better acquaintance had been formed with our skill and the disinterestedness of our object. A report of these operations in Chusan was presented by me, and published in 1841 with the general report of the society, in which there is given much useful information of the diseases met with in that part of the country. During this stay at Tinghai, from September, when the hospital was opened, until February, when the withdrawment of the British troops made a longer residence impracticable, upwards of 3500 patients had been attended. It is worthy of remark that, while the majority of the cases treated in the hospitals of Macao and Canton had been in the surgical department, a large number of persons afflicted with fever and other diseases, generally classed as medical, applied for relief at Tinghai.

I returned to Macao in 1841, remaining there during the period of hostilities between England and China. When the treaty of Nanking was settled, in 1842, I went to Hongkong, in the hope of proceeding to Chusan, but was detained in the former place till the spring of 1843. In the interval I superintended the building of the Medical Missionary Society's hospital at Hongkong, which was afterwards placed under the charge of Dr. Hobson. The building bought for a hospital at Macao was then disposed of, as it was thought more desirable to have the hospital in a British colony than in the Portuguese settlement of Macao. Again I proceeded to Chusan early in 1843, and for a second time opened a hospital there, to which the natives flocked as during my former visit. At the end of that year I left the island of Chusan for the newly-

opened port of Shanghai, the most northerly of the consular positions secured by the new treaty for the residence of merchants and other foreigners. A hospital was commenced there early in 1844, of which a fuller account will be given in the pages which follow:—

"When the British had been expelled from Macao, in 1839, the hopes of the friends of the Medical Missionary Society were encouraged by the arrival of two additional medical missionaries, Dr. B. Hobson, of the London Missionary Society, and Dr. W. B. Diver, in connection with the American Board of Commissioners for Foreign Missions. The offer of their services being accepted by the society, the hospital at Macao was placed under their joint charge upon Mr. Lockhart's departure for Chusan. Dr. Diver's health failing obliged him to leave China and return to the United States. The institution was thus left in the sole care of Dr. Hobson, who has pursued his labours with unwearied industry, and has succeeded in establishing among the Chinese the same confidence which has proved such an encouragement to others who have given themselves to the same course of usefulness."

"Such is a brief outline of the society since its organisation in 1838; and though, owing to the unsettled state of political affairs in China, the medical officers have been occasionally interrupted in their plans and operations, there has been, with the exception of three months, at least one hospital open for the reception of the sick, and, computing the whole number of the patients entered on the books of the institution, about 20,000 persons have been relieved of their suf-

ferings. We cannot refrain from expressing our gratitude to Him whose creatures we all are for the opportunity afforded of benefiting our fellow-men; while we look forward with confident expectation to continually enlarged fields of usefulness and increasing opportunities of conveying to the minds of the patients the healing influences of moral care, and the hopes that the Gospel alone affords. It has been remarked, both by Mr. Lockhart and Dr. Hobson, that when patients have been removed from the surveillance and jurisdiction of Chinese officers, as they have been at Chusan and Macao, the most pleasing facilities have been afforded for distributing religious books and holding free converse with the people on subjects pertaining to their eternal welfare. These opportunities have not been neglected: suitable portions of Holy Scripture and select tracts have been freely distributed among all the patients, who have for the most part read them with care; and, when the holy doctrines of the Bible have been explained to them, they have at least been received with attention and respect. If such an amount of good has been effected during the past years of difficulty, restriction, and warfare, amidst so many changes and uncertain prospects, what may we not hope for in the new era that will succeed the treaty of peace between Great Britain and China, and the removal of the many barriers that have obstructed our progress! The prospects now opening encourage us in the highest degree to persevere in the same course that has already proved to be so successful."

"Peace has now been established with China, and upon terms that promise enlarged facilities for the pro-

secution of the labours of the medical missionary, as well as of others interested in the temporal and spiritual welfare of this large portion of their fellow-men. The efforts of this society need no longer be confined to a corner of the empire, nor its hospitals be limited to one spot, where the jealousy of a weak and despotic government has surrounded us with a system of restriction that has rendered intercourse with the people limited and uncertain, where the inhabitants have been taught to look upon foreigners as unworthy to enjoy the ordinary liberty of men, and the rulers to consider it necessary that peculiar laws should be made to restrain them from free intercourse with the people of the Celestial Empire, who would, in their opinion, be corrupted by the wicked dispositions of the barbarians from the West.

"The feelings of prejudice and dislike which this conduct on the part of their rulers has generated in the minds of the people, have been partly overcome by the medical officers of this society; and we may confidently hope that ere long, by the blessing of God, such feelings will disappear before the healing truths of Christianity and the disinterested labours of its propagators. Access is now given to five of the principal seaports of the empire, Canton, Amoy, Foo-chau, Ningpo, and Shanghai; and in these we have the best grounds for believing that a free intercourse with the people will be available. It is with the liveliest gratitude to the Almighty we are enabled to state that the Medical Missionary Society is in some measure prepared to take advantage of these new openings. Through the exertions of Morrison and other mis-

sionaries, who have been during past years zealously labouring to prepare the way for the introduction of the Gospel among the benighted millions of this empire, many of the difficulties of acquiring the language have been overcome; a knowledge of the institutions of the country has been acquired; some insight into the mode of thinking and the prejudices of the people has been gained, and the paths made more easy to those who are to follow.

"The three medical men now attached to the society, viz. Rev. P. Parker, Mr. Lockhart, and Dr. Hobson, whose labours have been summarily described above, have gained a respectable proficiency in the Chinese language, and are prepared to enter upon the fields of usefulness now laid open, and to continue their labours as heretofore. Dr. Parker, who, it will be remembered, in consequence of the disturbed state of affairs in China putting a stop to his medical labours at Canton, left that country in June 1840, that he might regain the health and vigour which his exertions had in some degree impaired, as well as have an opportunity of advocating the cause of the society in England and America, has returned to China and re-opened the hospital in Canton. It affords us great pleasure that we have been permitted to welcome him back to the same field where his labours have been already productive of so much good to others and so much honour to himself."

In 1844 Dr. Parker reports that, after an absence of two and a half years in a visit to America and Europe, he re-opened the hospital at the end of 1842, in the building where it was first commenced. After speaking

of the generosity and liberality of Howqua, the well-known Hong merchant, to whom the building belonged, and who not only charged no rent, but ordered his comprador to make all needful repairs and alterations, he says: "Never have the friends of this institution had more abundant reason to rejoice in its prosperity and influence. Never since its establishment has there been greater eagerness to take full advantage of it by high and low. On a few occasions about one thousand persons have been present on a receiving day. So dense has been the crowd that fears were entertained for the safety of individuals, lest they should perish in the crowd. As in former instances, we have to report men in the highest stations of influence and rank."

"The Kwang-chau-fu, the highest magistrate in the department, and the High Commissioner Ke-ying, and several persons connected with his suite, availed themselves of the aid of the institution. Ke-ying subsequently sent two autograph tablets containing the following sentiments: *Miau-shau-hwui-chun*—Under your skilful hand (from the winter of disease) the spring (of health) returns." "*Shan-she-jiu*—With longevity you bless mankind."

"Besides the hospital at Canton, others will, we have every reason to hope, shortly be in full operation at Shanghai, Ningpo, and Hongkong. Mr. Lockhart is now prepared to go to Shanghai or Ningpo, whichever may be deemed most eligible for the establishment of a hospital. These cities are both situated near the centre of the coast of China; and besides the large population and extensive trade which recommend them as suitable positions for establishing hospitals, they both

possess great facilities for communicating with the interior of the country, by means of which an influence for good may be exerted upon many with whom no present contact can be had."

"Dr. Hobson has recently removed to Hongkong, and in four or five weeks will have a hospital in operation there. After mature deliberation and much discussion, the society came to the conclusion that it was on the whole desirable that the hospital should be removed from Macao to Hongkong. In a few months the majority of the foreign community will have left, and ere long almost completely abandoned Macao, and there is every probability of its becoming daily a place of less resort. At Hongkong, which has the prospect of rising rapidly into importance, and where a numerous foreign community have already taken up their abode, the other missionary societies and institutions are fixing their head-quarters. The greatest facilities will also exist for carrying on the general business of the society, and for obtaining assistance in the preparatory study of the language by those who may come out as medical missionaries. It was also deemed advisable that we should be prepared to meet the medical wants of the numerous Chinese population that will be concentrating in and around Hongkong and resorting to it for the purposes of trade from all parts of the coast."

In accordance with this resolution, the house in Macao was sold, and the erection of a new hospital in Hongkong effected for somewhat less than the sum obtained from the sale.

"Three hospitals will thus very soon be open, and it

is hoped that other zealous and enlightened individuals may come out, to join in spreading to the furthest corners of China the benefits which such institutions are calculated to impart."

"In detailing the labours of the medical officers during the past years, the limits of this statement do not permit us to notice the many important cases that have come before them, and we therefore refer medical men and those curious in such details to the different reports which have been regularly published in the 'Chinese Repository.' In these reports they will meet with many interesting particulars relative to the history and treatment of diseases which, in countries where medical science has attained greater perfection, would have been checked in their early stages, but which here obtain a magnitude which is rarely or never seen among more civilised nations. We may look with confidence to the benefits which medical science may derive from the labours of the medical officers of the society, in the observation of new forms of disease, in larger additions to medical statistics, and in the discovery of new therapeutic agents among the productions of this vast and almost unknown country."

"To the various missionary boards, whose co-operation is sought, we would respectfully say, 'Imitate Him whose Gospel you desire to send to every land. Like Him, regard not as beneath your notice the opening of the eyes of the blind and the ears of the deaf, and the healing of all manner of disease. Until permitted to publish openly and without restraint the truths of the Gospel, neglect not the opportunity afforded of freely practising its spirit. Scatter to the utmost its fruits

until welcomed to plant the tree that produces them—the tree of life.'"

The foregoing quotations are from various pamphlets issued from 1834 to 1843; the latter extracts from the abstract of the "History of the Medical Missionary Society," published in Macao, 1843.

"The object of the Medical Missionary Society," we learn from its report, "is to encourage the practice of medicine among the Chinese; to extend to them some of those benefits which science, patient investigation, and the ever-kindling light of discovery have conferred upon ourselves.

"In the midst of many improvements, and surrounded by numerous social advantages, the Chinese are nevertheless deficient in medicine and surgery, and acknowledge this deficiency by their conduct whenever they can avail themselves of the well-directed skill and the superior adroitness of foreigners. The love of ease and the hope of health lead mankind to accept assistance wherever they can find it, to forego their prejudices, and sometimes to make large sacrifices even upon a very slender prospect of recovery. The Chinese, though exclusive in all their policy, form no exception to this rule, for they have come in crowds to the ophthalmic institution, submitting to operations and medical treatment with unbounded confidence, and obtaining health and restoration through the means of the physician, with every mark of the most unfeigned respect and thankfulness.

"'*Heal the sick*' is our motto, constituting alike the injunction under which we act and the object at which we aim, and which, with the blessing of God, we hope

to accomplish by means of scientific practice, in the exercise of an unbought and untiring kindness. We have called ours a 'Missionary Society,' because we trust it will advance the cause of missions, and because we want men to fill our institutions who, to requisite skill and experience, add the self-denial and high moral qualities which are usually looked for in a missionary. By the employment of such an agency, the way will be paved to a higher place in the confidence and esteem of the Chinese, which will tend to put our commerce and all our intercourse with this nation upon a more desirable footing, and to open avenues for the introduction of those sciences and that religion to which we owe our greatness, by which we are enabled to act a useful part in this life, and which fit us for the enjoyment of a better life hereafter.

"We would also refer to the benefits which are likely to result to medical science by cultivating it in China. Countries are not less characterised by the form and nature of the soil and productions than they are by the prevalence of certain maladies and a partial or complete exemption from others. The contemplation of disease, as influenced by the position and height of a country, its inland or maritime location, and the general habits of the people, conducts the student to a most engaging range of medical philosophy, while it discloses many important lessons to assist him in benefiting his fellow-creatures.

"It has been sometimes objected that to attend to the diseases of men is not the proper business of a missionary. This objection may be shortly answered by a reference to the conduct of the Saviour and his apostles,

who, while they taught mankind things that concerned their eternal interests, were not indifferent to their bodily sufferings. What He was pleased to do by His divine power, and what they did by miraculous endowments, no one can in these days pretend to effect. But we are commanded and encouraged to imitate them by the use of such means as knowledge and the exercise of a genuine charity will furnish.

"The importance of education has long been admitted, and none regard its requisite expense as a perversion of sacred funds; not that education can make the pagan a Christian, but because it is one of the best auxiliaries. Neither has it been considered a misapplication of money, or of the missionary's talent, to employ science as an instrument wherewith to sweep away the foundations of idolatrous systems. Not that science can convert a heathen, but that, by demonstrating to him the falsity of his religion, it may prepare the way for him to seek the truth. A similar rank and equal consideration are what we ask for the healing science and practice.

"A peculiarity of the Medical Missionary Society in China is that it addresses itself to the consideration of *all;* the man of science and the philanthropist, who look especially to immediate benefits, are here interested. And to the sympathies of those who, while they equally appreciate the desirableness of contributing in every possible manner to the welfare of their species for time, contemplate with unspeakably more concern those interests which are eternal, it presents an irresistible, an overwhelming claim. When we reflect upon the present state of medicine and surgery in

China, the suffering that is experienced, the lives annually and needlessly lost, and advert to the time when similar ignorance was the misfortune of the nations of Europe, and when we consider the rational basis upon which science is now established, and our facilities for imparting it to others, the obligation upon enlightened nations becomes imperative to improve the opportunity afforded of imparting to others the incalculable benefits received from the application of chemistry and natural and inductive philosophy to the subject of health, in the investigation of the causes and phenomena of disease, and the means of controlling it."

CHAP. VII.

MEDICAL EDUCATION OF CHINESE YOUTHS. — MEDICAL MISSIONARY SOCIETIES.—PROFESSOR MILLER'S LECTURE.—MEDICAL TREATISES.—DR. HOBSON.—HOSPITAL PRACTICE AT CANTON.

THE education of Chinese youths in the principles of the medical profession will prove a powerful agent in spreading a knowledge of science among their countrymen, and in carrying out the objects we have in view. Chinese parents of respectability have shown no unwillingness that their sons should be placed under the care of foreign medical men for educational purposes. Before closing the hospital in Canton Dr. Parker had three youths who had gained considerable knowledge under his tuition, and Dr. Hobson has now with him two young men of promise who receive regular and systematic instruction in the elements of medical science, and have attained so much proficiency that with their assistance he had treated during the fifteen months previous to the time when his report was closed the very large number of 5265 patients.

In connection with this subject is that of sending Chinese youths out of the country to attain in the institutions of England and America a more complete and extended education than can possibly be given by single individuals here; and we observe with much satisfaction that the subject has excited considerable

attention abroad, and that a society has been formed in New York for the purpose of supporting and superintending the education of such young men as may be sent to them. The subject has not yet, however, received the full attention of the society.*

In the first address on behalf of the Medical Missionary Society in China, in 1838, are the following remarks bearing upon this point: "Another advantage will be the education of Chinese youths in those branches which belong to medicine. Young men thus instructed will gradually be dispersed over the empire, travelling for pleasure, honour, or reward, and will dispense the benefits of a systematic acquaintance with the subject whithersoever they go. The success of their measures will render them respectable, and of course will redound to the credit of those also from whom they learned the art. Their patients will not only hear, but feel, that the people from the West are good men. The effect of such influence will be silent but powerful; for there is something irresistibly impressive in benevolent action, especially when it appears exempt from the imputation of interested motives."

Dr. Parker early turned his attention to this matter, and, as above stated, had several young men, at different times, whom he carefully trained, and who thus acquired a large amount of medical and surgical knowledge, which made them of essential service to him in carrying on his work. Some of these youths had previously acquired a good Chinese education, and after being taught English were used both as medical as-

* History of the Medical Missionary Society.

sistants and interpreters in the hospital. I have been surprised to see in several instances the extent of their attainments, and to witness their ability among the patients. More than one of them, on leaving the hospital, have established themselves as surgeons in private practice in distant parts of the Canton province.

Dr. Hobson, in 1845, states: "Probably a finer school for the study of ophthalmic diseases than the hospitals in China supply cannot be found; hence their value to the native assistants training under the auspices of the society. And I am glad to have the opportunity of stating that Assam, who last year underwent a rigid examination in the presence of Dr. Anderson and other medical gentlemen, continues to give very great satisfaction.

He is quite competent to take entire charge of an ophthalmic hospital, and I hope before long to see him established in practice for himself, and conducting a hospital on a similar plan to this in one of the populous cities of the neighbourhood. I am very anxious to see a medical school established in the immediate vicinity of this hospital in Hongkong. And from the facilities such a desirable and useful institution as this would give to China, I trust no efforts will be spared to carry this project into effect."

In one of his reports, Dr. Hobson says: "This leads me to express the interest I feel in the establishment of a medical class of from six to ten youths, and I embrace this opportunity of soliciting the countenance and support of the gentlemen of the committee to the proposed measure. As preliminary to the study of subjects more strictly medical, I would endeavour to convey some

instruction in the elementary branches of physics, chemistry, and animal and vegetable physiology, considered with special reference to natural theology; and with the opportunities of attending occasionally to practical anatomy and demonstrations, with the daily treatment of disease, as seen in the hospital practice, on their own countrymen, they would, by diligence and attention to their duties, be fitted both to practise and teach the profession to others. I feel convinced that this subject commends itself to the judgment of all, and I cherish the hope that, as early as circumstances will sanction it, the committee and friends of the society will provide the necessary means." The attention of Dr. Hobson to the education of young men as his assistants was amply repaid in the benefit derived from their intelligence. Some of those under his care were able to perform various operations, and one, more especially, had acquired so great an amount of professional skill that some of the European surgeons of the colony of Hongkong, by whom he was examined as to his attainments, expressed their admiration of his training.

Various circumstances retarded a like success at Shanghai. The young men whom I had under training did not stay long enough to go through any regular course, which led to frequent disappointment. One young man, who remained some time and was able to render valuable assistance, removed with his family from Shanghai, and has since turned the instruction he received to valuable account in his native district. Another, who is still engaged at the Shanghai hospital, was with me for some time and learned much of the practice of medicine and surgery; upon my leaving,

when Dr. Hobson took charge of the hospital, he continued his education so as, when Dr. Hobson's health required him to leave China, to be able to carry on the work. In this he has received the occasional kind assistance of resident surgeons in the more serious cases and operations. He performs all the minor operations very well, and can prescribe for the ordinary cases that come before him in the hospital.

The medical missionary of the London Missionary Society now at Canton, Dr. Wang-fun, was a pupil in one of the mission schools. Showing much ability he was sent to Edinburgh by the benevolence of some foreign merchants at Hongkong, and sustained there for several years. He acquired a thorough education, and passed through the University with much honour, taking several prizes, receiving his diploma and degree, and was honoured by the encomiums of his professors as one of their most creditable students. He offered his services to the London Missionary Society, and being accepted was sent to Canton, where he labours assiduously in the prosecution of his work, which will be further noticed in a subsequent chapter.

Before glancing at the circumstances which led to this event, it may be allowed to make a brief reference to some of the earliest friends of the Medical Missionary Society, who, by their liberality and personal exertion, did so much for its establishment and support. From the names of many English and American residents, whose lasting honour it is to have materially helped the work, it will not be deemed invidious to select the names of J. R. Morrison, Wm. Jardine, Launcelot Dent, and Alexander Anderson.

The first two of these died in 1843, and the society's report for the following year states: "Since the publication of the last report we have had to deplore the death of two of the earliest supporters of the Society —Wm. Jardine, Esq., and J. R. Morrison, Esq.—and we would take this opportunity of recording our appreciation of the important services they rendered to the society, and our high estimate of their benevolent character. Theirs was not a charity that gave of their abundance merely to the subscription in aid of its funds; they entered heart and hand into every good work, and their time and attention were ever ready to give counsel and assistance to benevolent undertakings. By the death of Mr. Morrison, who was recording secretary, the society has been deprived of a most efficient officer."

Mr. Jardine came to China as surgeon to one of the Hon. East India Company's ships, but settled in Canton and founded the celebrated mercantile firm that bears his name. He was always ready to aid Dr. Parker with his professional knowledge, in consultation as well as in operations, and took a warm interest in all that was done at the hospital.

Mr. Alexander Anderson, the successor of Mr. Colledge as surgeon to the British factory, was in private practice in Canton and Macao. He was one of the most energetic supporters of the society, not sparing his help (as I have often experienced) in any way in which it might be required. At a meeting held in 1845 was passed the resolution, "That the society are deeply sensible of the disinterested and important services rendered during a long course of years by Mr.

Anderson, and that the secretary be instructed to convey to him the feelings of the society on the subject. And, now that he is about to take his departure from this part of the world, that they unanimously tender him their best wishes for his future prosperity and happiness." Mr. Anderson afterwards passed several years in America and Scotland, and died recently after long and painful disease.

Mr. Dent, one of the worthiest and most influential of the English merchants in China, was amongst the foremost in whatever tended to the good of his fellow-men. By his liberality and his earnestness in conducting its affairs, he was of essential service to the interests of the society, and did much to insure its success. He died a few years after his return to England.

In 1845 a series of circumstances produced dissension in the Medical Missionary Society, which, owing to the enlarged opportunities and the favourable prospects opened for medical missions in China at that time, had not so detrimental a result as might have been feared. It will suffice for the purpose of this history to state the occasion of a division in council which ended in the formation of a second society claiming the name and position of the Medical Missionary Society.

The society, originally formed in Canton, had been used to convene many of its meetings in Macao. The foreign community chiefly residing in Hongkong at this period, a proposal was made that meetings should be held in the latter place as well as at Canton. Exception was taken to the proposal, and there being a difference of opinion also as to the use to be made of a sum of 5000 dollars which had been collected by

Dr. Parker, partly in England, but chiefly in America, for the purposes of the Society,—supposed by the committee to be at their treasurer's disposal for the Society's general support, and by the fore-named gentleman to be at his control as to its appropriation,—the two-fold difference ended in the naming by Dr. Parker of a committee of the Medical Missionary Society in Canton. In this way *two* societies of the same name were in existence—the one in Hongkong, with the history, constitution, and prestige of the original institution; the other in Canton, which also claimed to be thus regarded. For some years after this the two societies carried forward their benevolent purpose, but the sphere of such institutions had so enlarged during the progress of events in China, and local means been found so sufficient for the local necessities of the various hospitals which had been established, as to have dispensed with the rival distinctiveness of these two societies, and buried their differences in the common origin of that wide, Christian benevolence, which called into being *the first* of all Medical Missionary Societies in Canton, in 1838.

While the efforts of the Medical Missionary Society in Hongkong were sustained for some years with much efficiency, its medical officers at a distance found that ample funds from the liberality of foreign residents in the locality were available, which enabled them to form a society on the spot. This localising in several places of the means and agencies of the society at Hongkong, has obviated the necessity of its meeting for some time. The society in Canton still continues its operations in that city. Dr. Parker vigorously pursued his work for some years, until his departure from China.

The operations of the hospital under his care and that of his colleagues will come up for further notice.

Thus, while the Medical Missionary Society, as originally organised, has been dissolved, the work it had in view has in no degree been retarded. It had, perhaps, *completed* its work. When foreigners were restricted to Canton and Macao it was possible to meet the demands of medical benevolence by a committee of management on the spot. This work was done well by the Medical Missionary Society, and its effect will not soon pass away. Now that foreign intercourse has become so extensive, the Society could not be expected to overtake the requirements of distant stations. These being so amply provided for in other ways, the necessity for it, as originally constituted, has ceased.

The following remarks are abridged from the addresses to medical students, published by the above society in 1856. Dr. Coldstream, in his lecture on the spread of the Gospel, says:—"I have adverted to the fact that it was on the occasion of Dr. P. Parker's visit to Edinburgh, that the first movement was made towards the formation of our Medical Missionary Society. The committee then formed had for its object exclusively the collection of funds, as an auxiliary to the society in China. Shortly afterwards, in November 1841, the suggestion was made by Sir Culling Eardley, to form an independent society in Edinburgh, with the endeavour to form a centre of interests and action, with regard to all medical missionary affairs, but which should direct its first efforts to supply pecuniary aid to the Medical Missionary Society in China, and to the Syrian Medical Aid Association in London, and the society was consti-

tuted which afterwards became the Edinburgh Medical Missionary Society. Dr. Abercrombie was the first President. He took a lively interest in its proceedings, and frequently attended the meetings, proving himself as wise in counsel as he was energetic in action."

For the first three years the Society occupied itself in collecting funds for the Chinese and Syrian Associations, and in diffusing information on the object and working of medical missions. In 1844, an endeavour was made to send a missionary of its own to China, but without success. In 1848, Dr. Wallace was sent as a medical missionary to Parsonstown, in Ireland, who laboured there for some time with much acceptance.

The society has also issued various publications, as addresses and lectures, on the various phases of the work of missions, and publishes from time to time "The Occasional Paper" of the society, to give information on medical missions in various parts of the world. But the most important works published by the society are the two volumes of lectures and addresses. The first is called "Lectures on Medical Missions," delivered by some of the first medical men and preachers, who were members of the society, in 1849. The second is "Addresses to Medical Students," delivered in 1856, also by members of the society. These works are admirably written, and are full of information on the subject of medical missions, and the general duties and responsibilities of medical men and students. If the Edinburgh Medical Missionary Society had done nothing further than causing to be delivered and published the above very valuable addresses, it would have accomplished a good work; the opinions of such a body of men as were

the lecturers on these occasions, are worthy of all consideration. There are no other works which treat so admirably on the subjects indicated, and which better deserve the attention of all in the profession, whether they be on the threshold of their course, or have attained to the maturity and experience of advanced age. Counsel and instruction are here for all, and I cannot speak too highly of the wisdom and Christian earnestness that inspired the lecturers, or the liberality displayed by the society, in publishing the series of chapters that form these unpretending but important volumes.

Besides the above classes of work aimed at by the society, considerable attention was paid to the medical students who attended the various classes in Edinburgh. Some of these were helped in their education, funds being provided for their assistance, either by individuals or by the society. The students were induced to meet together for religious services, and to hear addresses on religious and missionary subjects, and also on the bearings of their present study on their future professional course. An attempt, and a successful one, was made to open a dispensary for the poor in the Cowgate, the details of which were carried out by the more experienced and advanced of the students, assisted by one or more medical men, as occasion required.

From the body of students thus influenced, three or four have gone out to heathen lands, among whom may be mentioned Dr. Wang-fun, a young Chinese, now in charge of the Chinese hospital at Canton, of whose labours mention is made in another place; Dr. James Henderson, who has lately gone to Shanghai as medical missionary under the London Missionary Society,

and Dr. Carnegie who, after labouring in the Lebanon Mission, has proceeded to Amoy as medical missionary under the English Presbyterian Church, and who has been very successful thus far in the prosecution of his work.

A portion of the society's funds has also been employed in sending out supplies of medicines, from time to time, to medical missionaries in various parts of the world. The society has done its work well, and, it is to be hoped, will be still further encouraged to prosecute its benevolent design.

The "Hackney Chinese Association in aid of the Medical Missionary Society," has also been of great service in diffusing information on the work of missions to the heathen, by its occasional publications; the funds collected by the devoted ladies who formed the committee, have been used in supplying books, instruments, and medicines to the different stations in China. Those who laboured in the field were cheered in learning that this society took so warm an interest in the object we had in view. The supplies that were furnished were of material service to the hospitals and dispensaries under our charge, and to the Chinese who resorted thither. In short, there has never been wanting a large measure of support in carrying on the medical department of the missions. Whenever assistance has been sought it has been most generously given.

The "Juvenile Missionary Society," in connection with the Crescent Chapel, Liverpool, under the ministry of the Rev. John Kelly, sent frequent and liberal contributions to the Chinese hospitals at Chusan and Shanghai.

A better view of the subject of Medical Missions can

hardly be given, than by an extract from a lecture by Professor James Miller, contained in the "Lectures on Medical Missionaries" above mentioned.

"Now let us direct our attention to the suitableness of medical missions for obtaining the object in view—the spread of the Gospel. In the first place, we have the example and precept of the Great Prophet and Great Physician, our Lord. What more interesting at any time, but especially with a view to the present inquiry, than to peruse the narrative which immediately precedes that most wonderful of all preaching, the Sermon on the Mount? 'And Jesus went about all Galilee, teaching in the synagogues, and preaching the gospel of the kingdom, and healing all manner of sickness, and all manner of disease among the people. And His fame went throughout all Syria; and they brought unto Him all sick people that were taken with divers diseases and torments, and those that were possessed with devils, and those that were lunatic, and those that had the palsy, and He healed them. And there followed Him great multitudes of people from Galilee, and from Decapolis, and from Jerusalem, and from Judea, and from beyond Jordan.'

"After that sermon, in which the 'merciful' and the peacemakers' were not forgotten in the beatitudes, His first act was to heal a leper; the second to cure the Centurion's servant, 'sick of the palsy, grievously tormented;' the third, to raise Peter's mother-in-law from a fever; the fourth, following the inspired narrative,—'when the even was come, they brought unto Him many that were possessed with devils, and He cast out the spirits with His word, and healed all that were

sick; that it might be fulfilled which was spoken by Esaias the Prophet, saying, Himself took our infirmities and bare our sicknesses.' His whole life was one continuous round of 'doing good,' to both the bodies and souls of men. 'He went about all the cities and villages, teaching in the synagogues, and preaching the gospel of the kingdom, and healing every sickness and every disease among the people.' Associating His disciples with Himself in the labour of love, and bestowing on them the power to heal 'all manner of sicknesses, and all manner of disease,' they were sent forth, not merely to preach, saying, 'the kingdom of heaven is at hand,' but also to 'heal the sick, cleanse the lepers, and raise the dead.' Freely they had received; freely they were to give. His last solemn injunction, we have already seen, was, 'Go ye, and teach all nations.'

"After His ascension, we find Paul and Barnabas, in fulfilment of that command, 'separated' for the missionary work, and sent unto the Gentiles. And hardly had they begun their tour, when we read of Paul restoring the impotent man of Lystra, 'a cripple from his mother's womb, who never had walked,' and by that miraculous cure so arresting the public mind, that 'scarce restrained they the people that they had not done sacrifice unto them.' The first missionary—with all reverence be it spoken, was Emmanuel. He was and is, the Great Physician, and among the 'multitudes' that followed Him, he not only preached the Gospel, but 'healed all manner of disease.' The first missionaries to the heathen were Paul and Barnabas; and 'Luke the beloved physician,' shared both their travel

and their toil; his own doings unrecorded, simply because he was himself the author of the narrative.'

"Seeing, then, that the practice of the Apostolic Church points us plainly to the appropriateness of uniting the healing of disease with the preaching of the Gospel as a means of spreading abroad the latter, the only surprise need be that the system which was so hallowed by example, and enjoined almost by direct precept, should have been hitherto so little pursued. True, the circumstances of the present day and that epoch are not exactly the same. The power of miracles has been withdrawn, but the wisdom and experience of ages have been given instead; and under many circumstances, even now, the power of healing is very wonderful.

"The heathen or Gentiles, to whom the Apostles went,—the Romans and Greeks, for example,—were highly civilised for the time, and more versant and skilled in the healing art, than all the nations around: for be it remembered, it was the time of Celsus, and he was the cotemporary of Ovid, Horace, and Virgil. The legitimate deduction from this, however, seems plain, that if under such circumstances, the admixture of the healing of disease with the preaching of the Gospel proved successful in securing confidence and winning souls, much more is it likely to succeednow, when the movement is by the skilled and experienced, upon the ignorant and uninformed.

"Perhaps it is objected that the system is dishonest; that the gift of healing is used as a lure to draw men under false pretences to change of religious belief. We answer that the Medical Missionary may well be

content to underlie such an imputation, while he can point to Paul's noble vindication of *his* mission-work at Corinth: 'Be it so; nevertheless being crafty, I caught you with guile.' Be it so, in the estimation of men. It may be 'guile,' in the eyes of the scoffer, but surely in the sight of God it is a heavenly wisdom in any one, who, being 'crafty,' wins souls to Christ; a wisdom, moreover, not only sanctioned, but hallowed for ever, by the example of Emmanuel. While He *taught* the multitudes, He not only *healed* them, but *fed* them too. And what impious breath is daring enough to prefer against His acts the imputation of double-dealing or dishonesty?

"But in truth there is no 'guile,' in the ordinary acceptation of the word. There is wisdom, and there is true benevolence, but there is no deceit. The missionary does not pretend to heal disease miraculously, as if by Divine power. On the contrary, should such a thought possess the objects of his charity, it is protested against as solemnly as were divine honours by Paul at Lystra. Neither does he go to the heathen with his right hand extended, holding one thing only, and while doing that slyly seeking an opportunity to do another thing in secret and by stealth; but he goes with both hands extended, each holding its gift, open and exposed; each gift a precious boon, freely and fairly offered; in the left hand, health for the body; in the right, health and life for the immortal soul."

Before noticing more generally the works on medicine, written in Chinese by Dr. Hobson, it will interest many to read the following remarks, taken from his Report of the Shanghai Hospital for 1858:—

"Healing the sick, with a benevolent object in view, has been my chief occupation since the commencement of 1840, at Macao, Hongkong, Canton, and Shanghai. But relieving suffering humanity is not the only object of a medical missionary; it is to place Christianity in an attractive form, and facilitate its diffusion among a people singularly suspicious of, and averse to, foreign influence. The above remark applies with great force to Canton, where institutions of this character are more needed, and probably more appreciated than elsewhere.

"Medical science in China is at a low ebb. It does not equal the state of the medical art in the time of Hippocrates and Celsus. The knowledge of anatomy and surgery in ancient Greece and Rome was much superior to anything now in India and China. I have been endeavouring to contribute my mite to the object of instructing the Chinese in medicine, and have just completed a series of volumes on medicine and the collateral branches, both for the instruction of native practitioners and to diffuse general information on these subjects, with the hope also that, ere long, the Chinese government will do something to encourage the study of the medical art. At present there are no colleges or schools in the country, excepting the Imperial College at Pekin, for the use of His Majesty and high officers. Anatomy is totally interdicted both by law and public opinion. Any man, however, may practice medicine, and thousands do so, with the slender knowledge which books afford, or by the exercise of their own common-sense, which proves a safer guide, and brings persons occasionally into notoriety, and also a

good income. In these books, which are based on principles adopted two or three thousand years ago, the important doctrine of the circulation of the blood is not only not understood, but preposterously confused and erroneous. Their theory of the pulse proves this to a demonstration. There is no distinction between arteries and veins—no knowledge of the heart's proper function, nor of the necessary changes the blood undergoes in the lungs and capillary system. The Chinese know nothing of the nervous system, its functions and diseases. They have names for the brain and spinal marrow, but nothing more. They have a pulse for every organ but the brain. The true position, forms, and uses of the viscera are not understood. They profess to be so, but a glance at their drawings discovers the most glaring errors. There is no lack of books and observations on the functions of the body; for everything, even the most inscrutable and mysterious, is explained by the Yin and the Yang, the hot and the cold, the dry and the moist, the superior and inferior influences! Almost every symptom is a disease, and every prescription (of which the books contain thousands) is for every imaginable symptom, indicating a miserably small amount of acquaintance with the nature and the causes of disease; and so long as the Chinese are content to follow the old paths, there is little hope of improvement.

"In this condition of things, it seemed very desirable to attempt to introduce the well-established principles and facts of western medical science to prepare the way for changes in the present system of China. Under this conviction a work was prepared in

Canton, eight years ago, on the subject of anatomy and physiology, avoiding all theoretical opinions. This has been extensively read and very favourably received, and has proved a good foundation for what was to follow.

"The next treatise was on the properties of air, light, heat, and electricity, and the elements of astronomy and natural history, designed as an introduction to these varied branches of natural phenomena.

"This has been succeeded by a work on the principles and practice of surgery; by another on midwifery and the diseases of children; and by a fifth, on the practice of medicine and materia medica, together with a medical vocabulary, in English and Chinese, to explain and fix the terms used. The illustrations show at once the subjects treated of, and I have spared no pains, by the aid of an intelligent native, to make these works accurate, perspicuous, and useful.

"Although attended with difficulties, it is still quite practicable to make every subject with which we are ourselves acquainted as clear and as expressive in Chinese as in English. Both religious and scientific works should, however, only be made by persons who have been some time in the country, and conversant with Chinese authors. The great desideratum for a translator is a good and fixed nomenclature on every branch of science. The language admits of a satisfactory and distinct explanation of most new terms; where it does not, these must be transferred."

In looking at the works above mentioned, I know not which most to admire, the beauty of the works themselves, and the successful manner in which they

have been put forth, as to the letter-press and the illustrations, or the untiring labour of the writer, not only in such an excellent compilation from various English authors, but in rendering it into Chinese, in so admirable and intelligible a manner. The volumes thus published will be of incalculable benefit to the Chinese, and were this all that Dr. Hobson had accomplished it would be worth the labour of a lifetime. It must not be forgotten, however, that, whilst thus engaged, the important duties pertaining to a largely frequented Chinese hospital, first at Canton and afterwards at Shanghai, called for his active attention.

With the exception of a brief treatise on anatomy by some of the Jesuit fathers, illustrated by a few plates, but containing scant information, and that not attractively presented, I am not aware of any other attempt of this kind previously. The appearance of the volumes before us excited general attention. They at once attracted the notice of the people, who readily appreciated their object, set forth with such clearness of description and finish of embellishment. The Chinese student of western science will find in them a store of valuable and necessary information set before him with clearness and precision, in his native language.

The treatise on anatomy and physiology, the first of the series, after some general remarks on the importance of the study, commences with the bones, and a comparison of the skeleton of various animals, the ligaments and muscles, followed by a description of the brain, the spinal cord, and the nervous system, of which the Chinese are wholly ignorant. After a short account

of optics and acoustics, the organs of sense are treated of, with their various adaptations in the case of the lower animals. The viscera, with their functions, are described and illustrated. The heart and its action, the blood-vessels and absorbents, the circulation of the blood, its purification in the lungs, occupy the most important chapter in the work, which is full of valuable instruction. Remarks on the urinary organs and those of reproduction complete the whole. The work closes with the devout recognition of the Creator of this wondrous frame, which demonstrates, in so clear a manner, the being, the wisdom, and benevolence of its mighty Maker. The concluding pages are devoted to a brief notice of psychological distinctions, suggested by a consideration of the material structure. The work is largely illustrated, and the details of the various parts beautifully shown.

"Natural Philosophy and Natural History" formed the subjects of the next publication. The exposition of the former is orderly and concise, embracing the subjects usually treated of, and is of peculiar value, as unfolding to the learner the true principles of things with regard to which he was either utterly astray, or wholly ignorant. The illustrations are clear and well adapted for their purpose. The chapters on astronomy are much sought for and eagerly read by the Chinese, who are very desirous of learning the laws of natural science. Those on natural history also are particularly interesting.

The next work treats of the "Principles and Practice of Surgery," of which the natives are ignorant to an extraordinary degree. Their entire practice consists in the use of plasters and the application of a few medica-

aents to ulcers, and it has often surprised surgeons from the West, that the Chinese who are an educated and an inquiring people, should have learned so little in the treatment of surgical diseases, if only from the experience of ages. This treatise, however, besides showing the benefits of surgical education, sets forth the entire subject of surgical practice, and is, like the former ones, well illustrated. Perhaps this work may be regarded as the best of the series, as it is certainly the most adapted for direct utility. Immediately upon its publication people of all classes were eager to possess it, and, doubtless, its rules for the treatment of various affections will be followed by many. The book will be one of frequent and studious reference, and will have a powerful influence in guiding many minds in their endeavours to aid those who hitherto in China have been left unattended to and neglected.

The treatise on the "Practice of Medicine" commends itself to the Chinese physician in an especial degree. Observation has taught them much concerning the empirical treatment of certain diseases, and, in many cases, their rules and directions are commendable as being well adapted. This volume gives them information, not only interesting, and which they can readily understand, but also explains the use and preparations of many medicines, of which, formerly, they had no knowledge. Appended to this volume is a list of medical terms in English and Chinese, necessary to the understanding of the work itself, and very valuable as being designed to help to a fixed medical nomenclature amongst the Chinese.

The last work which has been published is on "the

Practice of Midwifery," and is an important contribution. This practice is in China left entirely to women, who, in cases of difficulty, are utterly helpless. In this treatise, plain, simple, and concise directions are given for the proper treatment, and illustrations are added, both of natural and difficult labour.

It may be said of these volumes that what the valuable manuals published by Mr. Churchill have been, and are still, to the medical practitioner and student in Europe, *they* will be to the Chinese; and may, as a whole, be regarded as one of the most interesting contributions that have been given to that people for their individual and social welfare.

Shortly after the appearance of the first of the series, it was republished by the highest Chinese officer at Canton—the viceroy of the province. He had the illustrations recut, and printed separately, and made up into rolls, according to a favourite Chinese custom. Since then, the different volumes as they appeared have been republished by the natives. Government officers, native physicians, literary men of every rank, and persons from all parts of the kingdom, have eagerly sought for copies, and received them as a valuable boon. The last information of their acceptance is to the effect that the Japanese, to whom, soon after intercourse with that people commenced, the works were sent, have also republished them, but leaving out all the reference they contain to the Christian religion, or their Western origin.

Before Dr. Hobson left Shanghai, the foreign merchants there expressed their approval of these valuable works by subscribing the sum of 2000 dollars, for the

publication of a large edition of the series. A copy of this edition lies before me, and I am rejoiced to see the work of my honoured friend largely and deservedly appreciated. I do not know anything that will tend more to exert a good influence on the mind of the Chinese, and lead them to value foreign intercourse, than the production of the works thus briefly spoken of.

From the year 1845, to which date we have reached in the history of the Medical Missionary Society, it will be necessary to notice the progress of the work as it has been carried forward at the different stations. We may, with propriety, briefly review the success of the several hospitals, beginning with that of Canton, and closing with that of Shanghai. As this latter has for a series of years been the scene of the writer's own missionary labours, he will be enabled to speak freely, and with fulness of the working of the medical mission in that city. To His name, who "in every place" where the mission has been established has graciously given to His servants a large measure of success amongst the Chinese people—be all the praise!

The Report of the Medical Missionary Society for 1844 states: "Since the commencement of Medical Missions in China, and the formation of this society in 1838, for the purpose of assisting those missionaries who have availed themselves of the practice of medicine as a means towards the introduction of Christianity, and spreading among the Chinese the benefits of rational medicine and surgery, upwards of 30,000 persons have sought relief from the skill of the foreign physician; submitting freely to whatever was recommended by those, whom before they looked upon as

uncivilised, ignorant, and barbarous,"—assuredly no small matter to have been accomplished in a country like China, with her people enclosed as it were in their own prejudices and peculiar idiosyncracies!

The labours of Dr. P. Parker, at Canton, have already been noticed up to the date of his return from the United States, at the end of 1843. His next report makes mention of several cases of lithotomy which had occurred in the hospital, and had been successfully treated, and which are rightly deemed deserving of special remark, as forming "an era in the institution, these being the first cases in which the operation for stone had been performed in China." No one will doubt the satisfaction with which this success was hailed—nor when the missionary aim of these labours is remembered, will any one, either in the profession or out of it, deem misplaced the *moral* treatment in connection with the physical blessings imparted. No one can appreciate these blessings more than we do: the light of day again transmitted through the eye which had been long dark; the aneurism that threatens with speedy death, successfully checked; and the stone, which for years has caused pain, not less distressing than the rack, has been in as many minutes extracted, and in a few days followed by perfect recovery: yet these, after all, are subordinate to those spiritual blessings which run parallel, and are commensurate with man's immortal existence. And while rejoicing that these endeavours are approved by the most enlightened and devoted Christian communities, and by all classes amongst them, we are yet further animated by the humble hope of the approbation of that Saviour, whose

kingdom we devoutly desire to see established in China.

The feeling of confidence on the part of the patients just referred to, is worthy of notice. One of these was reminded shortly before the operation that with all the care that could be taken the result was sometimes fatal—he interrupted the remark by saying, "I have been too long acquainted with you, doctor, have seen too much in this hospital with my own eyes, to require anything now to inspire my confidence." The operation was successful, and the man, soon restored to health, returned to his family. His father, who was a learned man, wrote a letter of thanks for the kind treatment of his son, in which occurs these sentiments: "This certainly is a remarkable, difficult, and dangerous disease, at which other men fold their arms in despair; but the doctor, delighted and rejoiced at his ability for the task, seized the knife and cut, not causing many wounds: so that one may say, he is able to do what is of difficult performance to others—yea, can execute what is impossible for other men." Expressing his abundant thanks for favours which he could not recompense, he concludes: "therefore, I say, my constant hope is, that with a mind vast as the sea, he will generously excuse me for making no return. When I commenced this paper my heart skipped like the sparrow from delight indescribable."

In a case of removal of a tumour of very large size, which had caused the patient much distress and pain for many years, the report says, "The patient discovered great fortitude, coolly remarking on the commencement of the first incision, 'It hurts, doctor.'" It has fre-

quently been observed when operating on the Chinese, that having made up their minds to it, they leave themselves wholly in the hands of the surgeon, and usually seem to think little of the pain that is caused. Other instances of various operations for tumours, and three of amputation of the arm, occur in Dr. Parker's report for this year, which concludes thus: "Divine service has been conducted in the hospital for the last eight Sabbaths. The average attendance has been over one hundred, and none have been more respectful and cordial in their attention than those who have been patients. In these services the writer has been united with the Revs. Dr. Bridgman and Ball, and the Chinese evangelist, Leang Afah. These services must have been witnessed fully to conceive of their interest. Deepest, tenderest emotions have been awakened when contrasting the restrictions of the first years of Protestant missions in China with the present freedom. Then, not permitted to avow our missionary character and object lest it might eject us from the country; and the Chinese received the Christian book at the peril of his personal safety, and embraced the Christian religion at the hazard of his life. Now, by imperial sanction (alluding to the edict of toleration owing to the treaty), he may receive and practise the doctrines of Christ and transgress no law of the empire.

"Our interest may be more easily conceived than expressed, as we have openly declared our object, and the truths of the gospel among the people; or when we have looked upon the evangelist, Leang Afah, and thought of him fleeing before the executioner of the imperial mandate to decapitate him, and of his long

banishment from his native land; now returned from exile, earnestly and boldly declaring the truths of the gospel in the city from which he had fled. Well did he call on his audience to worship and give thanks to the God of heaven and earth for what He had done for them. With happy effect he dwelt upon the Saviour's life and example, and pointing to the paintings and illustrations of cures suspended around the hall of the hospital, informed his auditors that these were performed by His blessing, and in conformity to His precept and example; at the same time declaring the great truths which concerned them still more, that their souls had maladies which none but Christ himself could cure. To all the hearers upon the Sabbath, and likewise to all the patients during the week, irrespective of rank and condition, books, portions of the sacred Scriptures, and Christian tracts were given; so that thousands of volumes, and myriads of pages of the Bible and Christian books have been sent forth from the hospital to scores of villages and hundreds of families, and to different and distant provinces. In view of the changes which have transpired in our time, we can but exclaim, 'What hath God wrought!' and rest with new and firmer faith in Him, that He will, in due time, fulfil all His promises of mercy and grace to this empire."

From July 1845, to December 1847, three more cases of lithotomy are reported; one being that of a man much reduced by long-continued suffering, who sank and died three days after the operation; the others were successful. An instance is given of a patient, who had had both his feet cut off by highwaymen. He

was a grocer on his way to a city to make purchases, when he was overtaken and robbed. To be able to make their escape before he could reach the city and report them, the assailants first gagged him, and then most barbarously disarticulated both feet at the ankle-joint with a common knife. In this mutilated and helpless condition he was found by persons passing by, who conveyed him home. He was subsequently brought to the hospital. That he had not died from hæmorrhage is remarkable. He remained some weeks at the hospital, where the stumps were daily dressed; but before the wounds, which were in a healthy condition, were completely healed, he preferred to take a supply of the necessary dressings, and to return to his friends.

At this period, 1847, the use of sulphuric æther was first adopted in the hospital, to relieve the pain in operations, according to the method of Dr. C. Jackson of Boston. Dr. Parker expresses the delight with which he witnessed the effects of this anæsthetic agent in causing the patients to feel no pain while being operated upon. It was tried in several cases; some of the patients requested that they might have the administration of the æther repeated, on account of the pleasure they experienced during its action.

At this period Dr. Parker writes: "With few exceptions, when personal indisposition or political and popular disturbances have prevented, the gospel has been proclaimed at the hospital every Sabbath. In addition to the services on the Sabbath, Leang Afah has attended every Monday, the day for admitting new patients, and addresses the assembled crowd of both sexes and all classes, before they ascend to the hall

above—explaining to them that the healing of their physical maladies, important as it is, holds but a secondary place; that the paramount object is to convey to them a knowledge of the gospel and its infinite blessings. One of the gospels, or a Christian tract, is presented to each, and then they are admitted to the hall above, where they are registered and prescribed for."

The mention of these religious services is followed by a short account of Leang Afah's life and labours. Besides the service at the hospital, he had public worship at his own house, in Hanan, and had baptized several of his countrymen. His preaching was characterised by great sincerity and affecting pathos. His prayers were most fervent, his Christian views strictly evangelical, his illustrations of the Scriptures lucid and clear, and his appeals frequently powerful in their impressions upon his auditors. It was once remarked by a Christian traveller, who attended one of the services, "that he did not understand a word of Chinese, but still he knew from the tones and gestures of the evangelist, that he was not only earnest, but even eloquent."

In the report for 1848-9, Dr. Parker says, "It is perhaps too obvious to require remark, that the labour and responsibility involved in the care of so many, and such serious cases as present themselves constantly at the hospital, have not been small; but it is a source of unfeigned gratitude that the continued Divine blessing has signally crowned these labours and responsibilities; and the confidence and gratitude of Chinese of all grades, as reported in former years, has exhibited no abatement. The former imperial commissioner, Ke-ying,

since his return to Pekin, has sent to his old friend and physician for professional advice; and his successor in office, Seu-kwang-tsin, with all his national prejudice, and policy hostile to foreigners, on a public occasion made honourable and complimentary allusion to the institution. Persons from the offices of high provincial dignitaries, the governor-general, the general of the Manchoos, and others, have availed themselves of the benefits of the hospital. Patients have been received from different and distant provinces of the empire, and in one instance a gentleman came a journey of two months from Cheh-kiang, to obtain surgical aid. And that the Chinese are not ungrateful or unmindful of the benefits they receive, the scrolls and tablets presented by various patients sufficiently testify."

Seven cases of lithotomy are reported during this period, which, with one exception, were successful. The subject of one of these operations afterwards presented two scrolls, having the following sentiments: —

"Let the merits of Jesus, the Saviour of mankind, be promulgated throughout the world.

"You deliver from all diseases, and by extraordinary means save myriads of people.

"Liu-Lien-Mau presents his compliments."

Another patient, on leaving the hospital, presented the following letter: — "In the cyclical year Wu-shin (A.D. 1848), I had been afflicted with the stone disease for more than a year, and every (Chinese) physician having been unable to effect a cure, I repaired to Dr. Parker, the celebrated physician, and begged him to cut and extract the stone, and in some days I was well, and thus manifest the sentiments of my heart:—

Not only according to true principles do you disseminate your art:
But, still more, in your emerald satchel you possess an assortment of wonderful prescriptions."

Several gun-shot wounds are also reported, the result of attacks on passenger-boats and native vessels by pirates. Some of these injuries were very serious and required much attention. After the removal of a large tumour on the neck, in the operation on which the carotid artery required ligature, the patient was discharged well in a few weeks.

A gentleman came from the interior, upwards of a thousand miles, seeking the removal of a large tumour on the cheek. He had heard of the hospital through friends who had visited Canton, and earnestly sought the relief which he knew had been afforded to others. The tumour was extirpated, and he soon recovered his health. Before returning home he wrote a letter in which, after expressing his gratitude, he said :—"I am about to return with my friends to Kwei-chau, and after returning home, I shall every day burn incense and light candles, and bowing my head to the ground, return thanks to the deified Jesus, and to God, the majesty of heaven. I shall, moreover, write their names on cards, and will widely disseminate them among all the people, in order to make some return for their great favours." Before his departure he was shown that the religion of Christ was not one of mere outward observance, and an effort was made to impart right views of the gospel,—that the heart alone is required in the worship of the true God, and not the burning of incense and candles, as in the worship of idols.

During this year, chloroform was first used in the hospital, with the full measure of relief from pain, under operations, and without any resulting ill effects.

The religious services were regularly maintained, not without much impression upon several of the patients, from what they heard in the way of religious instruction. What they listened to in the hospital of this character, was all the more confirmed by what they saw done for the bodily relief of those who resorted thither. "It is a constant source of gratification to witness the living evidences of the divine blessing upon the medical missionary cause, in the persons of those whose lives, through its agency, have been prolonged for years. From time to time, one and another calls, who, five or ten years since, by a surgical operation were delivered from evils fast hastening them to the grave; then another who, fifteen years since, was on the border of dissolution from an affection which, without foreign aid, had terminated speedily and fatally, is distinctly before the mind.

"After the experience of fifteen years, the cause of medical missions, whether as it respects its divine origin, or its peculiar adaptedness as a means to the introduction of the gospel and its blessings in China, has not diminished my view of its importance. Confidence, friendship, and influence have thus been acquired, attainable in no other way so successfully."

In 1850—51, the report mentions fifteen cases of lithotomy, in all of which the patients recovered. It is gratifying to know that in this particular branch of surgery much was effected for the relief of a painful and distressing malady, and the confidence shown by

the patients in submitting to so painful an operation reflects the highest honour on Dr. Parker. The fact that the average of recoveries is decidedly above the number in similar operations in Europe shows not only the skill of the operator, but the excellence of the constitutions of the Chinese people, who do, in fact, recover very readily after surgical operations. Several cases of tumour, some of them of a remarkably large size, are also reported. Such cases of tumour are not more prevalent in China than elsewhere, but in Europe they are removed at an early stage, while in the former country they are allowed to grow until they assume the enormous proportions that are seen at the various Mission hospitals, and frequently are so large as to be a most oppressive burden to the unfortunate patient. A Chinese artist, Lamqua, to show his appreciation of the value of the Canton hospital to his countrymen, took the portraits of many of Dr. Parker's more remarkable patients, first showing the malady from which they suffered, and then the appearance after the patient was cured. These paintings form an interesting series of characteristic maladies, and when Dr. Parker was in England, on one occasion, he presented a set of them to the Museum of Guy's Hospital, where they excite the surprise of students and visitors.

One of the patients, the subject of lithotomy, on quitting the hospital, presented the following letter: — "I had been afflicted for several years with stone, which caused me no ordinary suffering; subsequently I applied to Dr. Parker to cut me, and afford relief, and in less than one month this disease disappeared as a thing that is lost. Deep is the sincere gratitude I bear

him, and I have composed this couplet as a record of my constant and lasting remembrance:

By the stream, and by the steel,
He can cure, and he can heal;
Life and health he can impart,
Be he honoured, and his art.

"Presented to the friendly inspection of the eminent physician, Dr. Parker.

"SIE-WAN-KWOH."

CHAP. VIII.

CHINESE GRATITUDE. — MR. OLYPHANT. — HOSPITAL PATIENTS. — LUNATIC ASYLUMS. — DISEASES. — NATIVE PHYSICIANS. — RELIGIOUS INSTRUCTION TO THE CHINESE. — HOSTILITIES. — CHINESE MEDICINES.

ANOTHER patient, from whom a large tumour of the face had been removed, was a literary man of good talents and amiable disposition. During his stay in the hospital he had been a most attentive listener to the gospel, and seemed intellectually, at least, to be convinced of the truth and excellence of Christianity. On leaving he offered a scroll with the following inscription :—" Sie-kien-hang, of the province of Kwang-si, presents his respects to the very benevolent Dr. Parker, and moved by his polite attention, addresses to him the following sentiments :—

> One look of healing wisdom he to regions far imparts,
> And thousand verdant orange-trees by the fountain-side he plants."

Dr. Parker records his thanks to Dr. S. Majoribanks, who in most of the operations for stone, and in many other of the more serious surgical cases, cheerfully rendered his valuable aid ; also to Mr. H. Rutter, to whose skill he was indebted for the delineations of the lithographic drawings of the series of calculi, which illustrate the reports.

At its annual meeting, in 1850, the Canton branch of the society had the satisfaction of the presence of

D. W. C. Olyphant Esq., one of the original founders and life-directors of the Medical Missionary Society in China. "To few in China, or out of it," says Dr. Parker, "does the society owe so much for its existence and prosperity, under Providence, as to that distinguished merchant and Christian. His efforts to obtain a place for the hospital will not soon be forgotten; an object rendered difficult of attainment by the jealousy of the Chinese, and their aversion to foreign innovation. After many, and long trials, he obtained the house that has been the theatre of its operations to this day. It afforded pleasure that he had the opportunity of revisiting this country, and witnessing the important changes since his last visit. Sanguine hopes were cherished that the recent occasion would not be without its beneficial results to medical missions, and to all benevolent efforts for China, on his return to the United States. But an all-wise Providence ordered otherwise, and to the names of Abercrombie and Holford, distinguished advocates and promoters of medical missions, who are now no more, has been added that of Olyphant. His memory will be held in grateful and lasting remembrance."

During this period the religious services at the hospital were maintained as heretofore, in as full efficiency as possible, and the written acknowledgments of patients give pleasing evidence that the great principles inculcated had been correctly apprehended; while applications for aid from distant provinces, and expressions of most unbounded confidence showed to how wide an extent the operations of the hospital had become known and were appreciated. The amount of suffering alleviated, and the actual good effected can be more

easily conceived than expressed. Salutary impressions had been produced on many minds, the extent and result of which another day will disclose; and the encouragement to persevere in the good work which had been prosecuted for so many years, is ample and satisfying.

The work at the hospital was continued with its usual efficiency in 1852 and 1853, although it devolved in great degree upon the native assistants. This was owing to the necessary absence from Canton of Dr. Parker, who was at this time appointed United States Minister in China.

In 1855, the total number of patients entered in the hospital records, since its opening twenty years previously, was reported as more than 53,000. During the previous year, 1854, the place had been closed for some time, owing to the disturbed state of the city, besieged by the army of the Triads. A large number of gun-shot, and other wounds were admitted at this period, but otherwise the character of the surgical and ophthalmic cases was similar to that of former years. A native assistant, who had been the chief dispenser for twelve years, died at this time. Dr. Parker thus concludes his report of the seventeenth anniversary of the society, and the twenty-first of his residence in China:—"Memory brings up the past. It recalls years of toil; and all the responsibility of one who has been entrusted with the health and lives of thousands, and tens of thousands of fellow-men, embracing every condition of life, from the beggar to the member of the imperial house; every grade of office from the street-constable to the imperial commissioner.

"Wearisome days and sleepless nights have been spent; the best of my days have been devoted to the labour of endeavouring, with the divine blessing, to arrest maladies that were hastening their victims to the grave. To the deaf, hearing; to the blind, sight; to the dying, life, have been instrumentally restored. I have had the gratification of seeing some who have survived severe operations, for five, ten, and even twenty years, who had diseases which would have long since terminated in death if they had not been arrested, and then after restoration to health have passed away.

"To many thousands, truths before unknown, the sublime doctrines of revelation have been declared and expounded, and thousands of copies of the gospels and Christian tracts have been distributed. The influence of these efforts has already been apparent, but the final result cannot be known, till all who have come under their reception have passed away. Then, whatever may have been the aggregate blessings conferred by medical missions, if it shall appear that one Chinese has been induced to quit his idolatry, and is recognised as one blest for eternity, it will outweigh all the physical and temporal good."

The report of the meeting of the Canton society in 1856, states that Dr. J. G. Kerr, of the American Presbyterian Mission, had consented to take charge of the Ophthalmic hospital, during the absence of Dr. Parker from China, and that the hospital had accordingly been transferred to the care of Dr. Kerr in May 1855. The report for that year was destroyed with other papers by a fire on the premises of the Presbyterian mission, but the work of the hospital was fully

maintained, and during the year five cases of lithotomy, and several other operations had been performed. Thanks were accorded to Dr. Parker for the gift of his stock of medicines on his departure for the United States; to the Hong merchant, Howqua, for the continued use of the hospital building free of rent; and to Dr. W. G. Dickson, for his various operations for stone, and for his counsel and assistance on other occasions during the year.

At the meeting in 1857, Dr. Kerr's report for 1856 was read, he having been compelled, by failure of health, to leave China for the United States. Dr. Kerr says, "In the year 1855, Dr. Parker, who had charge of the Ophthalmic Hospital, proposed to me to take charge of it during his absence in the United States, whither he was about to go. Although I then had charge of a dispensary which fully occupied my time, it seemed very undesirable on all accounts to permit the hospital to be closed, and I consented to the proposed arrangement. After undergoing some necessary repairs, the building was opened for the reception of patients in June 1855, and the hospital and dispensary were to be used for the attendance of the sick, who have been very numerous." "The diseases treated have been mostly of a chronic character, many of them such as had for a long time resisted the remedies of native physicians, and not a few were incurable. The majority of the patients have been from among the poor and labouring class of society; but many persons in easy circumstances, and a few literary men and officers, have sought medical aid. Much suffering has been relieved, sight has been restored to the blind,

deformities removed, and in many cases life has been prolonged. The gratitude of the patients has been manifested by a profusion of thanks, and sometimes by small presents." Six cases of lithotomy were operated on by Dr. Dickson, who also performed several other operations with his accustomed kindness and skill, and the general work of the hospital was prosecuted under very encouraging circumstances. The religious services also were held regularly as heretofore, conducted by Dr. S. W. Williams and the Rev. J. B. French, and portions of the Scriptures and Christian tracts were freely given to all the patients and their friends who accompanied them.

On December 14th, 1856, the hospital building was destroyed by fire, when the foreign factories were burned by the Chinese, owing to the hostilities which had broken out between the Chinese and the English in that year. For twenty-one years had the operations of the medical mission been carried forward in the premises, which, since 1842, had been generously given free of rent by their owner Howqua, which favour was to be continued as long as the building should be used for hospital purposes. Most of the medicines were kept at the dispensary, which was destroyed by fire October 29th, 1856; the hospital furniture and the general apparatus were all lost in the conflagration of December. The building itself, in its arrangements and ventilation, was ill adapted to its purpose, and its locality was unfavourable, as being too far removed from the river. It is greatly to be desired, on behalf of the future efforts of medical missionaries in Canton, that a suitable building be obtained, in

which the improvements of modern hospitals may be secured.

Rejoicing, as we must, that so much has been done at this hospital during the many years in which its doors were open, we cannot but feel distressed that its usefulness should be brought to so sudden and abrupt a close. The work of the medical mission in Canton is, however, still maintained, and, as will be seen in another part of this history, many Chinese patients in that city are cared for by the devoted labour of a well-educated Chinese surgeon, Dr. Wang-fun, who proceeded to Canton immediately upon the cessation of hostilities.

In April 1848, after considerable difficulty, Dr. Hobson obtained a house in the western suburbs of Canton, at Kum-le-fow, situate on the banks of the river, and in a populous neighbourhood. The interference on the part of the government officers against a foreigner's renting a house was soon overcome, and a dispensary was at once opened on the premises. Many patients applying for relief, and the position of the house being favourable, various alterations were made to adapt it to the wants of a hospital. These being completed, the regular work was begun, the healing of the sick, distribution of books, and the preaching of the Gospel, were carried forward by Dr. Hobson and his native evangelists. Numerous patients presented themselves, and large numbers of women unhesitatingly came for relief from various maladies. Amongst the cases of special interest there were several that were incurable, but to the majority immediate relief was afforded. Instances of attempted suicide by opium which were brought in were restored, and life was saved.

Dr. Hobson remarks on insanity :—" Considering the phlegmatic temperament, and temperate habits of the Chinese, it might be anticipated that this malady is not of frequent occurrence, and I think further inquiry will prove that insanity prevails to a much less extent in China than in Europe. It has been rarely mentioned in the list of diseases treated by medical missionaries; and on referring to the 'Golden Mirror of Medical Practice,' a standard work in China, I find a very meagre description of the symptoms, cause, and treatment of this disease. Idiocy is properly distinguished from lunacy, and this latter is divided into two kinds. *Kwang* and *Tien*, the first (mania) belongs to the Yang principle, with an excess of fire or excitement; the second (dementia) partakes of the Yin principle, with fluidity in excess, and a state of depression, and there may be a transition of one into the other."

"Lunatic asylums are unknown in China. Several young and grown-up persons, idiotic from their birth, have been brought for treatment, some of them with remarkably formed heads, flattened on one side, smaller than natural, or conical; but during eight years I have seen only two cases of insanity, both men of about forty years of age. One was violent and mischievous, and often furious when displeased. It appeared that his mind had been much depressed by losses in trade and the death of his children. His friends had chained one hand and foot to a large block of granite. He was under treatment for some time, but with no permanent benefit. The second was a mild case of mania. He was occasionally violent, but could sometimes answer questions rationally. After treatment in

the hospital for some days he was quite restored to his usual health."

On the apparent frequency of tumours amongst the Chinese, Dr. Hobson says:—"I doubt whether the opinion commonly expressed is a correct one, that Asiatics are peculiarly the subjects of unnatural enlargements and large growths. In the West many tumours are removed by operation almost as soon as they appear, and are never seen or heard of; still a large number come under the care of hospital surgeons. In the East, more especially in China, the excision of tumours by the knife of the native practitioner is scarcely, if ever, practised. I never heard of a single case. The consequence is, that the tumours go on increasing both in number and size from year to year, and thus excite attention, and produce the impression of their greater frequency among the people." Several operations for the removal of tumours are reported for the year.

"Canton, considering its population, seems peculiarly free from severe, continued, and intermittent fevers. I have heard recently of several deaths from cholera, among the first of which was the father of a child who was under my care. He was seized with cramp and died in two hours. The malady is called in the dialect Chow-kan-ching, 'a drawing up of the tendons.'"

"The mortality of children from small-pox is every year very great, and the amount of blindness, or leucoma, resulting from it, is painful to refer to. The benefits of vaccination on any large scale appear chiefly confined to Canton, and yet here there are multitudes who have a prejudice against it. There is also reason

to fear that the virus has degenerated. Attempts are now making to renew the supply."

The attendance of old and new patients at the hospital each day varies from 100 to 250, and the congregation at the religious services on the Sabbath was generally from 80 to 150, but at times as many as 250 or 300 were present. Dr. Hobson concludes his report for 1848–49:—"On looking back upon the past sixteen months there appears much to be grateful for. A missionary living with his family among a heathen population, and surrounded by so many that are viciously disposed, is much exposed to malevolent feeling. The preservation experienced of life and property, and the freedom from all molestation and harm, are surely to be attributed to the gracious protection of God. Thousands of the poor and wretched have been healed of their sicknesses; many have received sight and hearing; pain has been assuaged; fears of a life of misery have been removed; and much suffering has been prevented by a timely operation. The institution has proved a benevolent one, and is in some measure appreciated, we hope, by the multitudes who have received the gratuitous aid that it affords. To the afflicted poor it has been, and, it is hoped, will be, an unspeakable blessing. Many faithful discourses have been preached; frequent religious conversations have been held; and thousands of copies of Christian tracts been put into circulation. And some fruit has already appeared in the conversion and baptism of two of the patients, and the hopeful change that shows itself in the conduct of several others."

The hospital thus auspiciously commenced in a part

of the Canton suburbs where no foreigner had previously resided, was continued with increasing success, and in 1854 Dr. Hobson reports: "The attendance of the sick increased rapidly, and the good effected at the hospital was so apparent that all opposition was hushed. The obtruder was regarded with some suspicion at first, and even talked of as a spy, who was secretly working to gain the hearts of the people to rebel against the state, and that the doctrines taught were contrary to Confucius and unsuitable for China. These and many other foolish reports were put into circulation at first, but they were gradually seen not to be founded in truth; nor during a period of six years was any disturbance or interruption experienced."

Early in 1854, when it was found necessary to obtain larger premises, and an effort was made to rent a house in an eligible position near to the old one, great opposition was raised by the neighbours, and there was much difficulty in getting possession. The landlord was imprisoned and heavily fined, for presuming to rent his house to a foreigner. These difficulties were however removed by the intervention of the British Consul and Her Majesty's Plenipotentiary, and the new premises having been altered and repaired, Dr. Hobson and his family quietly moved into them. When the street-door was opened a few days after for the admission of sick there was a large attendance of patients. These were prescribed for on four days in the week; and on these occasions the hospital was like a market, so great was the crowd who flocked to it, and a good opportunity was thus afforded for teaching the things concerning the kingdom of God, and of distributing

freely many Christian books. The works on natural philosophy, on anatomy, and physiology (more fully noticed in another place), were at this time carried through the press. The Governor-General's father had the plates of the treatise on anatomy recut, and tastefully arranged on eight scrolls, with commendatory remarks of his own on the character of the work. The entire book was reprinted by the same individual. The edition issued by a native gentleman has an extensive and profitable sale, thus proving the estimation in which the work was held by the people for whose benefit it was written.

All the simple operations on the eye and ear, the removal of small tumours, the extraction of teeth, dressing wounds, &c., were performed by the assistant, Ho-king-mun, who also assisted in prescribing for the sick. He was able to use the stomach-pump, and other means for the recovery of attempted suicides by opium. Of these no fewer than 117 were brought to the hospital, or visited at their own houses, in fifteen months; seventy-five of them recovered. About two-thirds of the number were young females.

Of leprosy, Dr. Hobson remarks: "Mention has been often made of the prevalence and incurable nature of leprosy. It is gratifying to state that the seeds of the *Chaul moogra* are found to be of real service. Dr. Mount of Calcutta drew my attention to this fact, and sent me a quantity of the seeds. These were given in the form of coarse powder, in doses of sixty grains, twice a day, and the expressed oil rubbed on the eruption occasionally. I have seen two cases certainly cured, and several others much benefited. The remedy

must be persevered in for not less than from four to six months; under its action the diseased surface gradually assumes the appearance of healthy skin. The remedy is known to the Chinese under the name of Ta-fung-tsze for the seeds, and Ta-fung-yew for the oil; but those who have any experience of its value keep it a secret for their own profit. The Chinese account says that it is imported from the south (probably the Straits). It produces a change in the blood; hence useful in the diseased blood of leprosy; it is also useful to apply the expressed oil to ulcers, itch, and psoriasis, and it kills worms. The seeds should be given in the form of pills." *

In his report, Dr. Hobson warmly expresses his thanks to his friend Dr. Walter Dickson, who was in practice in Canton, for his very valuable assistance in the hospital; not only in the performance of operations, but by the numerous and beautiful drawings for the illustrations of the works alluded to above.

The advantage of the more commodious premises was fully realised during the years 1854 and 1855, when, owing to the fighting before Canton between the Imperialists and the members of the Triad society, who sought to take the city, many wounded were brought to the hospital. The number of those admitted was more than 500. At one period a great sensation was caused in Canton, and its vicinity, by the stir of convey-

* From Dr. Hobson's Hospital Report for 1854. He has since written an excellent paper on leprosy, which appeared in the Medical Times and Gazette for 2nd of June, 1860. It is too long for insertion here, but is well worthy the perusal of all who are interested in the subject of the diseases of the East.

ing wounded soldiers through the streets, and large boats bringing wounded militia by water. The hospital was thronged with visitors, and friends and companions of the wounded. The largest number occupying the wards at any one time was 135, of whom about forty were attendants on the patients. The anxiety occasioned by so severe a demand upon his labour brought on exhaustion and fever, and Dr. Hobson was compelled to take a voyage to Shanghai in December 1854, to recruit his health, while Dr. Dickson kindly undertook the care of the wounded in the hospital wards. On his return, after a month's absence, Dr. Hobson found that all had gone on well; the native assistant and the hospital servants had, however, suffered much from the hard work required of them. The greater number of wounds were from gunshot, chiefly gingall balls*, causing fearful mischief, with much laceration and contusion of the flesh.

Native physicians were provided by the government for the sick and wounded, and the militia (village braves) also had native surgeons, who were paid according to the number of cures they effected. As none of them, especially at first, had courage or ability to extract balls or attend to dangerous cases, these were mostly brought to the hospitals by their friends, or sent by their superior officers or the managing village committees with a card of introduction. In this way large numbers were brought in day after day.

Religious instruction was carried on both on the weekday and on the Sabbath for some time by Leang-Afah, the "old disciple" and preacher, who for several

* Vide page 20.

years had been associated with Dr. Parker and Dr. Hobson in their respective hospitals, in making known to the Chinese the great truths of Christianity. This good old man, full of years and faith, was suddenly taken to his rest in April 1855. He was ordained by the late Dr. Morrison in 1823, and had faithfully fulfilled the work given him to do.

At this period the ordinary work of the hospital was very great, as may be seen from a record of the new patients for one day: —

"October 14, 1854. Received ten gunshot wounds from the country:

1. Gunshot wound of the shoulder; ball passing through the head of the bone, and grazing the ribs. Died.
2. Gunshot wound of the hand. Cured.
3. Gunshot wound of the fore-arm. Cured.
4. Gunshot wound of thigh. Died from trismus.
5. Gunshot wound of chest. Cured.

6 to 9. Superficial gunshot wounds. Cured.

10. Gunshot wound of the head; brain protruding. Died."

A similar list might be given for many successive days. Sometimes when it was thought the day's work was finished, a large boatfull of wounded men would arrive, requiring of course immediate attention. The number of old and new patients prescribed for during the year was nearly 30,000, of whom about 10,000 were separate cases who appeared for the first time. Concluding his report for 1855, Dr. Hobson says:—"It must not be supposed that in conducting hospitals in China

we have the same appliances and means at command as exist in Christian countries. There, ample means are provided, and there is a staff of officers who are able to do much of the work. Here, it is very different; one individual has to do the work of many; his assistants are natives, who are not always trustworthy and require constant superintendence. The pecuniary assistance is inadequate to do more than meet the incidental expenses, on a small scale, and provide medicine. The patient, while residing in the hospital, has to provide his own personal expenses. In performing operations regard must be had to the wishes of the patient's friends. One unsuccessful case, without the full consent of the patient and his relatives, would endanger the reputation of the hospital, and give ground for the unjust and injurious remark, 'the doctor killed the patient.' Using the knife among a people so suspicious and fault-finding requires unusual caution; and hence it is found necessary to divide the responsibility in undertaking operations that involve danger to life, and it is wise only to perform those that hold out a very favourable hope of recovery. It has often been matter of surprise that the people should have such confidence in a foreigner's advice, and take so readily the medicines he prescribes. The question is often put, 'Are they thankful?' Some are very grateful; the greater number are unthankful or indifferent, and a few make the obligation to appear to be on our side. The long-cherished hope and desire of the Christian, is, not to receive thanks for the few favours he can bestow, but to see this people willing to receive the richer blessings of the soul, towards which there is such chilling indifference."

The report for the following year (1856) speaks of the unabated confidence of the people in the hospital and its managers, while regretting that bodily relief exclusively is sought rather than spiritual advantage. Dr. Hobson remarks: "In hundreds of cases health has been restored. Many persons who were led into the house blind, from cataract and other causes, have returned home with good sight; others whose life was rendered miserable by the weight and pain of cumbersome tumours, or offensive cancerous growths, have have had their health and lives preserved perhaps for years to come. A few cases of calculus have found effectual relief by an operation; a variety of accidents from falls, bursting of guns, explosions of gunpowder, and gunshot wounds, together with numerous cases of poisoning by opium, have also found here an asylum where such casualties are wont to be relieved."

The patients, when assembled from time to time to receive religious instruction, are often asked, "What means this care and gratuitous aid to the sick?" "Why is this hospital conducted by a foreign surgeon, and assisted by donations from foreign residents? What political intrigues influence us? We have nothing to do with government business. We simply desire your good; show you the benevolent nature of Christianity, and urge you to turn from idols to serve the living God." The argument is one that none can gainsay; all must admit its truth. But while it produces impressions favourable to religion, and removes some prejudices, yet, in most instances, it stops there; and we still look for that softening and subduing influence upon their feelings and character, which a long course

of kind treatment might naturally be expected to produce.

There were quite as many patients during this as in the previous year; and were the cases all of serious character it had not been possible to attend to the applicants in a single day, the number of whom was seldom under 100; and during eight months of the year, more than twice, and occasionally more than three times that number. The religious services were well maintained. During the latter part of the year several persons were brought under religious impression, and gave marked attention to the Christian doctrines. Out of twenty persons who requested baptism, ten were considered to give satisfactory evidence of being true converts, and were accordingly baptized in January 1856, by the Rev. Dr. Legge.

Not a week passed at this time without some surgical operation being necessary. The smaller ones, as those on the eye and ear, the removal of small tumours, tapping for hydrocele, have been performed as usual by the native assistant. "Referring to him," says Dr. Hobson, "I may state that a few months ago the Chinese government, wishing to show some token of acknowledgment for services rendered to their wounded soldiers in the hospital, sent him, through an official, the following communication :—

"'Quickly announce to Ho-king-mun, of such an honourable house, that the Governor-General of the two provinces, and the Lieut.-Governor have received the Imperial will, that the individual recommended above be rewarded with a white crystal button, corresponding to the sixth rank of an officer of the

government. Made known by the high officers.' This title of honour, while it confers no emolument nor office, gives a certain status in society, allows the individual to wear an official costume on certain occasions, and exempts him from being seized by the police. Surprise may be felt that the pupil should receive honour, and the foreign surgeon none. The explanation may be this, that while indirectly it was designed for the latter, the high officials, especially in Canton, try to ignore foreigners altogether, and cannot condescend to acknowledge their obligations, even though they may appreciate the benefits received."

"The painful operations, as cutting for stone, removing large tumours and cancerous growths from the breast, neck, and other parts, were performed by Dr. Dickson, who, to relieve me from anxiety, and afford me some time for other duties, has very kindly taken the operating department off my hands."

"There are three young men practising medicine in Canton, who received some instruction in the hospital. If they had been more steady, and had obtained more knowledge of medicine and surgery, they would by this time have been experienced practitioners. One of them is gaining some celebrity for his successful couching of cataract. He, with another, were well remunerated for opening a small hospital in the country to receive wounded militia during the disturbances of last year. Occasionally we hear of persons, for the purpose of gaining money, affirming that they have learned the art of curing diseases of the eye in the hospital. Not many months since an individual in a country town was deceived in this manner, and paid a

few dollars in advance for an operation for cataract. He came here afterwards with one eye ruined, but fortunately the other had been untouched, which saved him from total blindness."

"It was stated in a former report, that fifty patients were usually in the house at one time, but the number has often been suddenly increased to seventy or eighty, for whom, especially in hot weather, there was not sufficient accommodation. To remedy this want, two more rooms on the ground floor were erected. The expense of these new wards, and of several other improvements which the premises required, was met by funds contributed for the purpose by various friends."

Such was the condition of the hospital in July 1856, from which time to the following October, when its operations were suddenly and completely suspended by the unexpected hostilities which arose, the institution had never been in a more prosperous state. The premises being in the vicinity of some large batteries in the western suburbs, it was thought desirable by Her Majesty's Consul that they should be early vacated, as firing from these forts was expected from the commencement. Not supposing that the affairs then pending would be of long or difficult adjustment, scarcely anything belonging to the establishment was removed. A short time prior the repairs of the hospital had been completed, comfortable accommodation was provided for one hundred in-patients, who were increasing in number every year, and with few exceptions entirely maintained themselves. The out-patients, who were prescribed for four times a week, averaged on each occasion from two to three hundred. Attending to

these with due care, performing numerous operations, publishing books, and exercising a general superintendence over a native Christian church, and several native assistants engaged in the hospital, or the country around, in tract and Bible distribution, occupied all the time and strength of one individual. Within the premises, besides the numerous wards, were a chapel, a dispensary, book stores, rooms for the assistants, and accommodation for the medical missionary and his family. The poor, the maimed, the blind, and the lame were found there daily; the place was to them a refuge constant and unfailing. And in the review of all that was done in that hospital, and by its instrumentality, it is satisfactory to be assured that so much was effected, both in the relief of human suffering, and the preaching and distribution of God's holy word. It may be interesting to insert here the following account of the proceedings at the Canton hospital on the Sabbath day, published by an eye-witness in one of the London journals for October 1854:—

"We recently spent a Sabbath there, and the scenes of that day — and they were the scenes of every Sabbath there — were such as would enlist the interest and prayerful hope of every friend to Christian missions. At eight o'clock A.M. we joined a company assembled in an upper room. Three native members of the Christian church were there, and seated round were upwards of a score of Chinese, most of whom were patients, or their attendants from the wards. A copy of the Testament was handed to each man, and for many of them the place was found, for some of them had not seen the Book of Life before. A young

Christian Chinese gave a simple, clear, and earnest exposition of the appointed verses, which was followed by a further statement, or more fervent application, from Dr. Hobson. Then came a final prayer, and this morning service terminated.

"The patients were mustering early in the chapel seats, which by the hour of eleven were wellnigh filled, and the places appropriated to those connected with the hospital were occupied. At that hour the aged evangelist, Leang-Afah, walked to the preacher's seat. The order of conducting service was similar to that of Congregational churches at home, but the aged man follows the custom of his country's sages, and sits to teach. On the occasion we refer to, he expounded closely and vigorously the Apostle Paul's address to the Athenians, and his hearers were attentive. As he concluded his address, the foreign teacher stepped forward to the table. With the earnest affection and effort of an acknowledged friend are they urged to lay hold on eternal life.

"After the preaching of God's word, we entered the consulting room, and saw ability to relieve the suffering mixed with the charity which careth for the soul. Like a market was the place outside, for the patients were numerous; but two tract distributors were busy among them, and now and then a knot of listeners would gather round them to receive some explanation. Seated at a table was Leang-Afah, explaining to a goodly circle of those waiting to be healed, the book of God, or answering their objections to his preaching. Surely it was a goodly sight, and the Lord of the harvest will bless such labours, if His servants ask it of Him.

"The afternoon was no less profitably employed by the indefatigable missionary. He was seen leading on the two native Christians from ward to ward, and in each ward they read, conversed, and prayed, until all in the hospital heard of that Saviour, 'whom to know is life eternal.'

"On three week days the hospital is again opened for preaching and healing the diseased. At the time we write the attendance is greater than has ever been known, although in the month of June it amounted to 3,400. From ten A.M. to three P.M. is the morning engaged, in addition to the attention called for by in-door patients. The wards are filled with wounded soldiers, and three large boats are lying close to the hospital, which have brought men from the country ports where there is now fighting. Including attendants on the sick, there are a hundred people residing in the hospital."

As before stated, Dr. Hobson had to leave the hospital in October 1856. For some time after the premises were vacated, the people in the neighbourhood, who, a few years before, had been adverse to the renting of a house in that district to a foreigner, voluntarily took charge of the hospital buildings and all that they contained. They preserved them from an excited populace, punished two or three persons who were detected pilfering, and intended to hand the premises over uninjured to the original occupier on his return. They had no expectation of the distress that would be entailed on all classes by the obstinate conduct of their Governor, nor any idea of the severe pressure of continued hostilities, with the increase of destitute persons in the

city. Their protection of the hospital was gradually and of necessity withdrawn, and soon after nothing remained but the bare walls. Such was the report current at the time, and it is now referred to, to show the good-will which such an institution wins for itself, even from those who were formerly inimical.

Disappointment and regret at such an unexpected termination of cherished hopes and years of toil could not but be deeply felt. But the labour has not been lost; information was brought from Macao in 1857 of several persons who attribute their religious impressions to the Christian instruction imparted in the hospital at Kum-le-fow.

It had long been Dr. Hobson's intention to follow up the "Treatise on Physiology," published in 1850, with a practical work on surgery; but numerous engagements in the management of the hospital at Canton prevented. Hostilities in that city rendering a removal to Shanghai desirable, the opportunity was afforded for completing the work.

Dr. Hobson removed to Shanghai in February 1857, and carried through the press his work on surgery, which is spoken of in another place; and when, in the latter part of that year, the writer was compelled by domestic circumstances to return for a time to England, Dr. Hobson took charge of the Chinese hospital at Shanghai, and carried on all the work for more than a year, until failing health made it necessary that he should seek a renewal of strength by a return to his native land.

In 1857, Dr. Wang-fun a Chinese, after the completion of his medical course in Edinburgh, was sent out

by the London Missionary Society as medical missionary to Canton. Upon the occupation of that city by British troops in 1858, he proceeded thither, and after a little time regained possession of the hospital at Kum-le-fow. He repaired the premises which had been much injured, and recommenced the work of the hospital, which is still actively and successfully prosecuted.

Dr. Hobson gives in one of his reports the following information on Chinese medicines:—

"The following order and list of medicines is taken from a popular and standard work, called an Abridgment or Selection of the Chinese Native Medicines. In this work there are 442 medicinal agents described: first, their name is given; then the part or organ into which they enter or affect; next their properties, whether hot or cold, their taste, smell, and colour; and, lastly, their uses and doses

I. *Tonic Medicines.*

"1. Those medicines which warm and strengthen the viscera: such as ginseng, dried dates, fruit of the lung-gan and li-che, flesh of fowls, and beef, honey, &c.

"2. Mild and tranquillising tonics: liquorice root, parasite of mulberry tree, fruit of the cypress, old rice, broad beans, yam, asses' glue, birds' nests, mutton, duck, pigeon.

"3. Medicines which increase the natural fire, or stimulating tonics: cassia, cinnamon, aloes wood, sulphur, asbestos, stalactite, tops of hartshorn, dried red spotted lizard, silkworm moth, &c.

"4. Medicines which nourish the secretions, espe-

cially of the kidneys: linseed, elm bark, medlar, minium, black and white lead, tortoise shell, human milk, and pork.

"5. Medicines which strengthen the kidneys and testes: glue from stag's horn and bones, stag's flesh, dog's flesh, dried placenta, ferns, walnuts, &c.

II. *Astringents.*

"1. Warm and tonic astringents: nutmeg, gall nuts, lotus seeds, poppy seeds, &c.

"2. Cooling astringents: pomegranate's skin, charcoal, burnt straw, bones and tusk* of dragon, oyster shell, &c.

"3. General pure astringents: seeds of date (a kind of sisiphus), Armenian bole, quince, and sour plum.

"4. Repressing weakness, or tonic astringents: iron filings, hæmatite, loadstone, talc, litharges, gold and silver leaf.

III. *Resolvents.*

"1. Cold diaphoretics: fragrant basil, ginseng, ginger, orange-stalks, onions and leeks.

"2. Medicines which disperse wind: mint, species of bivalve shell, cassia, mimosa pods and seeds, seeds of acacia, tigers' bones, spotted and black snake, musk, dried scorpion, cicada, centipede, shed snake skins, camphor.

"3. Medicines which disperse moisture (not recognisable).

* In reality fossil tusk of the Megatherium and other extinct animals found in Sze-chuen, which are generally called dragon's tusk.

"4. Medicines which disperse morbid heat: yam, black pulse-curd, and soy made from pulse.

"5. Emetics: white hellebore, seeds and root of turnip, skins of marsh-melon, sulphate of copper.

"6. Warm resolvents: nutmeg, long, white, and black pepper, cardamoms, putchuck, mugwort, aniseed, ginger, galangal, corn flag, tobacco, cloves, sandal wood, gum benzoin, camphor, barley, resin, caraway, and mustard seeds.

"7. Mild, equalising resolvents: chamomile, rush, seeds of burdock, putchuck, duckweed, betel root, pumelo or shaddock peel or skin, orange peel, mint, dried silkworm chrysalis and ordure.

IV. *Purgatives.*

"1. Absorbents of moisture: rice-paper plant (a kind of flag), sliced China root.

"2. Laxatives: plantago seeds, soap-stone or steatite, fossil pecten, sage, amber, red beans, &c.

"3. Diuretics: ferns (several not recognisable).

"4. Expectorants, or suppressing phlegm: alum, bezoar, borax, pistachio nuts, mica, concretions in the bamboo.

"5. Purgative or cooling: rhubarb, bamboo shavings, persimmon tops, water-melon, pears, verdigris, seashells, gypsum, common salt, sulphate of soda, warm water, calcareous spar, catechu, pearls, bear's gall, preparations from human ordure.

"6. Refrigerants purging away fire: red and yellow gentian, sliced peony, mulberry root and leaves, hartshorn shavings, loquat leaves, rhinoceros horn shavings.

"7. Repressing humours: almonds, buckwheat, &c.

"8. Mild digestive aperients: lily roots, wormwood, coarse rice, turtle shell, &c.

V. *Medicines which affect the blood.*

"1. Those which warm and nourish it: germander, brown sugar, olibanum, cassia wood, wine, scallions, rabbit dung, cuttle-fish bone.

"2. Medicines which cool the blood: saffron, cypress tops, elm-tree root, cinnabar, rabbit's flesh.

"3. Astringents of the blood: madder, turmeric, myrrh, dried varnish, plums, dragon's blood, peach seeds, arrow root, old copper cash, dried leeches, red marble, goat's ordure, cantharides.

VI. *Miscellaneous.*

"1. Medicines which destroy worms: assafœtida, betel root, quicksilver, chloride of mercury (native calomel), vermilion.

"2. Medicines which disperse poisons: seeds of castor oil plant, resin, ivory shavings, elephant's skin, preparations from toads.

"3. Expelling poisons or alteratives: burdock seeds, honeysuckle flowers, green peas, dried earth worms.

"4. Poisonous substances: croton oil seeds, arsenic, &c.

Summary.—"The native medicine is divided into vegetable, mineral, and animal kingdoms.

"From the vegetable kingdom there are 314 articles: from herbs, trees, fruits, seeds, and vegetables.

"From the mineral fifty articles: from metals, minerals, fossils, crystals, and earths.

"From the animal kingdom seventy-eight articles: parts of animals, reptiles, fishes, shell-fish, insects, &c. Altogether 442; of the several articles used in medicine many of them are native, others come from Europe, Japan, Siam, and the straits."

CHAP. IX.

THE HOSPITAL AT HONGKONG. — PRINCIPAL MALADIES THAT AFFECT THE CHINESE.—BENEFICIAL EFFECTS OF THE HOSPITALS ESTABLISHED AT AMOY, FU-CHAU, AND NINGPO.—CHOLERA.

THE hospital at Hongkong, built on one of the hills to the eastward of the town of Victoria, was opened by Dr. Hobson on June 1st, 1843. We read in the report for 1844: "The large number of in-patients that Dr. Hobson has been able to treat in its wards, is worthy of notice, as giving more full and lengthened opportunities of conversing with them on religious subjects; and it is with much satisfaction that we direct attention to the residence in the Institution, of Agong, a native Christian of age and experience (one of Dr. Morrison's converts), and to Dr. Hobson's account of the religious services that are held with the patients. Agong devotes himself to the propagation of Christianity among his countrymen, spending a portion of each week in instructing the patients in the word of God, and with the assistance of Dr. Hobson, is enabled largely to use those means, which he hopes, through the Divine blessing, will lead to the spiritual improvement of his people. This is carrying out fully the objects of Medical Missions, and it affords us much pleasure to record the attention that is now paid here,

and at other places where hospitals have been opened, to combine the labours of the spiritual teacher with the medical practice of the physician. The relief afforded at the hospital has been eagerly sought by the Chinese, the number of patients who have resorted to it being much greater than had been anticipated."

Such was the demand upon the hospital and the dispensary, that in the following year, 1845, additional rooms had to be built for the accommodation of the patients. Dr. Hobson reports: "I am happy to state that there has been no intermission, for a single day of the regular ministration to the sick. This duty has commenced punctually at nine o'clock, and it usually requires four hours to complete the inspection. The number of new patients registered from June 1844 to July 1845, amounts to 3,307, making the total for the two years the hospital has been opened in Hongkong, 7,221 patients. Of this number, about fifty each month, or upwards of 1200, have been admitted as in-patients, so that this class forms one sixth of all applicants for relief, which, when the following circumstances are taken into consideration, presents a fact of much interest.

"For here is a hospital on a large scale, in a locality far removed at present from the Chinese settlement, situated on a high hill, conducted by a foreigner, known as a religious institution, and offering, only to the most destitute, any pecuniary support, and therefore possessing no attractions to the Chinese, beyond that of gratuitous surgical and medical aid, and yet the hospital is filled with patients, men, women, and children, of varied diseases, age, and dialect, who come with the

greatest confidence, from a circuit of at least fifty miles, bringing with them their bedding, cooking utensils, rice and fuel, to be simply healed of their maladies. Several times small junks have anchored at the base of the hill, coming from the north-east part of this province of Canton, at a distance of from five to seven days' sail, with a number of patients on board. The same confidence is daily exhibited in the Institution, by persons from the districts of Heang-shan, Poon-yu, Shun-tak, Sun-oan, Hai-fung, Chen-chow, and other places. I have mentioned the above, not for the purpose of display, but to afford you some proof that this charity is appreciated, and that the liberality of the committee is rewarded by evident tokens of good."

"The diseases have been of a mixed character: neuralgia, and rheumatic affections of the joints have been frequent; next to these were cutaneous diseases, of which itch, psoriasis, lichen, eczema, and leprosy, were the chief varieties. Diseases of the internal organs, particularly the inflammatory, have been comparatively rare. Of these the most common, bronchitis, chronic cough, dyspepsia, and diarrhœa. Dysentery, both acute and chronic, which proves so fatal to Europeans in the East, is among the Chinese an unfrequent disease. This may be accounted for by their temperate habits, and unstimulating food, combined with a temperament congenial to the climate and their habits of life: whereas the European partakes more of the phlogistic character, and when unduly stimulated by too full a diet, and alcoholic drinks, and in the case of sailors, from the use of the native spirit, sam-shoo, it is not surprising, when also there is often great careless-

ness in not avoiding exposure to the sun, that there should be such destruction of life amongst this class, from this form of disease.

"The malady most fatal amongst the Chinese, excluding occasional epidemics of small-pox, is continued fever. From what I have been able to observe of its effects in Hongkong, it principally attacks those lately arrived in the colony. This year many of the Chenchow people have come hither for employment on the roads, and public works, and they have suffered more than any other class of natives this season. In May and June there was much sickness; and in the hospital ten deaths occurred out of twenty-six patients admitted, of whom, however, many were in a hopeless state when they came in.

"But diseases affecting the organ of vision greatly preponderate over every other malady incident to the Chinese. The statistics of all the hospitals now open at the northern ports, go to prove that this is not peculiar to the south, but prevails in all parts of China. The cause of this undue susceptibility to the ophthalmiæ, and their sequelæ, is not to my mind very satisfactorily explained. No doubt much may be accounted for by the practice of scooping and cleaning the eyelids by the barbers, the want of skill in the native practitioner, and that each year adds to the increased chronic forms of the disease. Persons with vision almost extinct, from long unsubdued irritation of ten to thirty years, often apply for relief, and even in these severe cases, considerable improvement to vision often results. But unfortunately, many apply who are past all recovery,

senting themselves with entire loss of vision, are quite distressing, the more so when a few hours' earlier application might have saved the eyes from destruction.

"With respect to the conduct of the patients, I have nothing to complain of beyond a frequent want of ready intelligibility of their various dialects, and their disregard to cleanly habits, neither of which is peculiar to these parts. There is no quarrelling, and no vice, to my knowledge, practised in the hospital.

"The doors are open night and day, and yet it is a rare exception for a patient to leave the hospital without first asking permission and returning thanks. This is a mark of confidence and good behaviour which will be appreciated when I mention that there is no compulsion exercised, or doorkeeper to watch their movements. They are made to feel at home, are treated with kindness, and as much is done for their benefit as their cases will admit of; and being inoffensive, quiet, and of temperate habits, little management is required. Their diet is simple, their constitution good, and united to a rare susceptibility to medicinal agents, with no prejudice from caste, a better class of patients probably does not exist.

"According to the objects for which I was sent hither by the London Missionary Society, I have endeavoured to make the hospital an effective auxiliary in spreading a knowledge of Christianity amongst the patients. This is not forced upon them, for it is a voluntary act for them to attend the religious services, held in the lecture room, morning and evening. These consist of singing a short psalm, reading and expounding the Scriptures, with prayer, and visitors have often expressed their

surprise at the good order and marked attention of the hearers. If the patients have not given satisfactory evidence that they feel or are influenced by the moral truths inculcated, the fault has not arisen from want of opportunity to learn them, or of persuasion to practise what they hear, the fault lies rather in their own innate apathy and indifference to religion generally. Much knowledge, however, has been diffused, and it may bring forth 'fruit after many years.' "

In consequence of the failure of Mrs. Hobson's health, it was necessary for Dr. Hobson to leave the colony in the autumn of 1845, and return to England, where he spent a short time before returning to China in 1847. Mrs. Hobson had sunk under the disease from which she had suffered, just prior to reaching the shore of England. Upon his return he immediately resumed his labours at the hospital, which had been kept open in the interval by the kind attention of Alfred Tucker, Esq., surgeon of the Naval Hospital Ship, and Francis Dill, Esq., colonial surgeon. After the early decease of these gentlemen, an event which was deplored by the community at large, Dr. A. Balfour cheerfully gave his disinterested services, and from a pure and benevolent regard to suffering humanity, regularly attended at the hospital, to afford his advice to the applicants for relief.

In this way the Institution was kept in full operation during the period of Dr. Hobson's absence, the Rev. V. Stanton, living on the premises, kindly superintending the general arrangements, and disbursing the requisite payments.

At the end of 1847 the directors of the London

Missionary Society being desirous of renewing their mission in Canton (where there had been no resident English missionary since the death of the Rev. Dr. Morrison), wished Dr. Hobson to proceed thither, and to seek in a quiet and unobtrusive manner, by friendly intercourse, and the exercise of his medical skill, to obtain a permanent footing in the midst of the Chinese population. He accordingly resigned the charge of the hospital at Hongkong, and proceeded to Canton, where, through the kindness of a friend, he succeeded meantime in obtaining part of a house until more suitable premises for a hospital could be secured.

At the beginning of 1848 Dr. Hirschberg, Medical Missionary of the London Missionary Society, succeeded to the charge of the Institution at Hongkong. Dr. Balfour had again given it his services, as far as was possible, for which constant and disinterested attention the committee expressed to him their warm appreciation. Upon the arrival of a resident medical missionary, whose exclusive regard was given to the hospital, the number of applicants increased, and the fact that many of them came from a great distance showed that its name and reputation were widely known. Dr. Hirschberg also established a dispensary on the peninsula of Kow-loon, in Chinese territory, at the other side of the harbour, opposite to Hongkong. One of the converts of the London Missionary Society had been stationed there a short time before to teach the young, and the patients were seen in the schoolroom.

Dr. Hirschberg says: "I began to visit Kow-loon, without asking permission from the Chinese officers of the place, and till now I have never been hindered by

them, nor molested by the people. Some of the higher officers have looked in, and some of the lower ones have at times paid a visit and asked for advice, but not one of them has said anything against my coming. At first they were suspicious, but now all suspicion is banished, and they are very friendly to me in every way."

At this station not only were the sick attended to, but the distribution of tracts and the preaching of the gospel were carried on at every visit. A service was also begun in one of the tea halls of the town, an officer who had been relieved at the dispensary of an ophthalmic affection permitting this to be done.

A second dispensary was opened at the Bazaar chapel of the London Missionary Society, to which a large number of patients, including many of the respectable classes, resorted, and where, on the return of the weekly visit, numbers of patients were in waiting. These efforts were of great service, especially to all those who could not attend at the hospital. Dr. Hirschberg was greatly encouraged in the prosecution of his labours, which occupied all his thoughts, and in seeing that the religious instruction of his patients was not without effect upon some amongst them.

In closing their report for 1848, "the committee are glad to state on undoubted authority, that the working of the society has had, and is still having, the effect of removing the feelings of hostility towards foreigners from the minds of the natives of the adjoining empire. Lately one of the German missionaries met with a most hospitable reception from the natives of a large village in the Fo-kien district, which he soon traced to

the fact that several of the inhabitants had been patients of Dr. Hobson in this hospital, of whom they spoke with feelings of gratitude and esteem. This circumstance alone is cause of much gratitude to Him who has so far blessed our exertions, and to Him let us pray that this friendly feeling may extend far and wide over the length and breadth of the empire."

In 1844, Dr. Devan, from the American Baptist Missionary Union, came to China, and established a dispensary at Hongkong. His health failing, he was compelled to return home in 1847.

Dr. Hirschberg continued his labours at the hospital at Hongkong until the middle of 1853, when he removed to Amoy. His labours there are spoken of in another page.

The old port of Amoy, where formerly the Spanish trade was carried on for many years, was opened to general foreign intercourse in 1843. It had been for some time occupied by our troops as a military station, and Mr. Abeel and Dr. Boone had resided there as missionaries since the beginning of 1842. In November 1843, Dr. Hepburn of the Presbyterian Church of America, being accepted by the Medical Missionary Society, proceeded thither, and began his labours in connection with Dr. W. H. Cumming, who had arrived in the middle of 1842. The law of the Medical Missionary Society requiring that its recognised agents should be those who had been sent out by some missionary society, Dr. Cumming, who was unconnected with any missionary society, could not, at first, be received as one of their medical officers. He, however, supporting himself from his own resources, laboured zealously, and

had a large measure of success amongst the Chinese. His health failing in 1847, he was obliged to discontinue his work and return to America.

The committee, however, had assisted him with funds for his hospital, and in 1843, in company with Dr. Hepburn, he carried on the work of the hospital in the city of Amoy with great success. Large numbers of patients resorted to them, and they were gratified in seeing the wide field of usefulness which was opening. "Mr. Abeel," says the committee, "devotes a portion of every day among those who come to the institution, in conversing with them on religious subjects, and directing their minds to Him who healeth both soul and body. We would hope the lovingkindness that animates his earnest appeals to turn from the worship of idols to the living God, combined with the disinterested exertions for the cure of their physical maladies, may prove the means of leading many to the way of life. May He who giveth the increase prosper their work."

In the report of the Amoy Dispensary for 1844–45, Dr. Hepburn thus states its progress: — "Medical labours were first commenced among the people of this place by Dr. W. H. Cumming in 1842, a year after the taking of Amoy. He opened a dispensary at Ko-lang-su, in the house of the Rev. D. Abeel, where it continued till January 1844. Not long after its establishment it became well known, and great numbers of people from most of the neighbouring cities and villages came to it for relief from their maladies. On several accounts, Ko-lang-su was "not considered a suitable place for the dispensary, as well as other

missionary labours, chiefly because it was too much out of the way, and sometimes difficult of access, being an island forming one side of the harbour. It was therefore thought desirable to remove to the town of Amoy itself, where, after some difficulty, because of the timorous spirit of the Chinese, and their unwillingness to rent premises, a suitable residence was obtained in the year 1844, where, after the necessary alterations and repairs, the dispensary was opened. Since that time the number of applicants for relief has been much greater than before, and the dispensary in every way more useful. The religious services have also been better attended. Besides daily conversations with the patients, a regular service on Sabbath mornings was kept up with but few interruptions. At this meeting there was generally an attendance of from 60 to 100 persons, most of them patients. It has always been the aim to make the dispensing of medicines to the sick go hand in hand with religious instruction, as the great object of the medical missionary."

At the time when Dr. Cumming was joined in his medical labours by Dr. Hepburn, the in-patients were but few, on account of the small accommodation on the premises. As these had for the most part undergone surgical operations, and required particular attention and care, a separate building near the dispensary was rented for their use. It was the rule to supply lodging and bedding, the patients providing their own food and the required attendance of servants. To this they willingly consented; the exception to the rule being in the case of patients in deep distress, or without friends to help them.

Failing health requiring Dr. Hepburn to leave Amoy for a time, he returned to the United States in 1845, and the dispensary was again left in the sole charge of Dr. Cumming, who reports in the following year the continuance of his labours, and laments the carelessness of many of the patients in following out his directions, and, consequently, his not being able to do all he had wished for them. In many other instances, however, former patients returned for aid in new disorders, frequently bringing with them relatives and friends on the same errand.

It is not necessary to specify the diseases treated at this hospital, further than to mention the treatment of quartan fever, on which Dr. Cumming remarks: —"The quartan fevers have been treated with great success this year. No paroxysm has occurred after the fifth day of treatment, and in most cases, none after the second day. Fowler's solution of arsenic has been invariably used, usually in doses of from seven to ten minims, three times daily. In a few cases the dose has been increased to fifteen minims, and in no case has any untoward accident occurred. In some of the cases an equal quantity of laudanum was added to the dose, where the arsenic produced irritation of the bowels, and thus the medicine could be continued without interruption till the patient was relieved from the liability to a recurrence of the fever."

Owing to a failure of health, and much to the sorrow of his friends, Dr. Cumming was compelled to return to America. His course of self-denying labour, in which from the beginning he had been self-sustained, had won for him the warm regard of all

who knew him. His ability as a well-educated man and a hard-working missionary was highly appreciated, and the cause of medical missions suffered much from his departure from the scene of his usefulness, to which continued indisposition prevented his return.

Dr. James Young, who had been practising his profession for some time in Hongkong with much success, offered his services as a medical missionary to the English Presbyterian Mission. He proceeded to Amoy in 1850, and prosecuted his work with much earnestness. The decease of his wife was followed by his own failing health, owing to disease of the brain, which obliged him to leave his position at Amoy in 1854. He died soon afterwards, under very melancholy circumstances.

In the year 1853, Dr. Hirschberg, after labouring several years at Hongkong, removed to Amoy, and arranged for opening a hospital, which was soon in full operation, with a large number of patients in attendance. The Rev. J. Stronach periodically visited the patients, for the purpose of instructing them in the Scriptures.

The city of Amoy, at this time in the possession of a body of insurgents belonging to the Triad Society, was besieged by the imperial troops. During the progress of the siege many of the wounded on both sides were brought to the hospital, where they received all needful attention, irrespective of their position as Imperialist or insurgent.

Dr. Hirschberg writes in 1855, that "several hundreds, during the last two years, by being in-patients,

or by attending for a longer or a shorter period, have returned to their homes with a good knowledge of Christianity, and all of them have taken Christian books on their departure. Twenty of the patients, who for the first time had heard the gospel, in the hospital chapel, had been baptized, and appeared to be sincere converts." During the following year others of the patients were baptized, which much encouraged the heart of the missionary.

As long as the city was in the hands of the insurgents, and especially at the end of the siege, when they were driven out of the place, the wounded, in large numbers, were attended to at the hospital, and Dr. Hirschberg found incessant occupation in ministering to them. The effect of such devotedness was proved as in other places. The Chinese, beholding the skill of the foreign surgeon in relieving suffering where their own means utterly failed, confidently entrusted themselves to his care, showing thus, that the Chinese hospital is a most effective agency in winning the good feeling of the people.

After several years of devoted labour, Dr. Hirschberg found his strength beginning to fail, and sought restoration to health by resorting to England. It is not likely that he will be able to resume his labours in China, or to return to a hot climate. After diligent and earnest devotedness to the work of medical missions, he left Amoy about the end of the year 1858.

The following year, Dr. Carnegie, of the English Presbyterian Missionary Society, arrived at Amoy, where he has since been labouring at the hospital commenced by Dr. Hirschberg, and has succeeded in keep-

ing alive the confidence of the people in its operations, since they are caused to feel how sedulously they are cared for and kindly treated. Should life and health be granted, Dr. Carnegie, who is well fitted for the work to which he has given himself, will prove an invaluable auxiliary to medical missions in that city.

The station at Amoy is one of unusual interest, on account of the large number of consistent converts to Christianity that have followed on the teaching of the missionaries there — a larger number than are to be found at any other stations on the coast of the empire.

Fu-chau, situate in lat. 26° 5′ N., long. 119° 20′ E., is the provincial capital of Fu-kien province, and is beautifully placed on the river Min. The scenery on the river and around the city is bold and magnificent, and its site may compare advantageously with that of our most picturesque European cities. Some of the hills around the city are 3000 feet high. Here is the celebrated stone bridge which connects the suburbs stretching from the city to the river side, with the suburbs of Nan-tai on the opposite bank. The bridge, which is lined with shops, is 420 paces long, and formed of long slabs of granite, resting on forty solid stone piers on the northern side of the small island which lies in the course of the stream, and on nine smaller ones on the southern side. Fu-chau was first opened to foreign trade in 1844, but it was not till two years afterwards that a missionary was settled there.

In 1850, Mr. Welton, of the Church Missionary Society, proceeded thither as their medical missionary. A portion of a temple, at the foot of one of the hills

within the city, was at length obtained for a residence and dispensary. On this hill the British Consul had his house and offices; and the hill was usually called by foreigners the Consulate hill. The literati, who had colleges and schools in the same locality, objected to this arrangement, and resolved on the ejection of the missionaries.

In the mean time Mr. Welton gave medical aid to all who came to him: two successful surgical operations for tumour were performed, and many cases were relieved. The people, so far from sympathising in the feeling of the literary class, were well disposed, and, instead of offering rudeness or insult, were obliging in their manners, and very grateful for what was done for them. Day after day crowds of sufferers thronged the rooms and verandah of the temple seeking relief, and a feeling very different from what the students were anxious to excite, began to pervade the city. Individuals of the higher class, and well-bred Chinese gentlemen, learning from the testimony of returned patients of the benefit they had derived from the medical treatment of the missionary, came to visit him, often from several miles' distance in the country.

Efforts were made, even at this early stage, when the mission was struggling to obtain a position in the heart of the city population, that the medical element should be made subservient to the great object in view —the communication of gospel truth. A Chinese tract, directing the reader to "The True Physician," was placed in the hands of those who were relieved. At length the authorities began to discourage the hostility of the literary men. The point in dispute had been

referred to the English governor of Hongkong, whose answer vindicated the missionaries in the line of conduct they had pursued. After some further trouble the difficulty was finally arranged, the authorities conceding to the missionaries the right of residence within the city, and the missionaries vacating the temple they first occupied and withdrawing to another temple in the vicinity, their occupation of which would be unobjectionable to the literary class. Thus, with some anxiety and danger, a point of great importance was secured, and the missionaries resident in the midst of this populous heathen city, had presented to them a prospect of great usefulness.

Mr. Welton forthwith opened a new dispensary, which was frequented by great numbers of the natives of all ranks. He much conciliated the people by freely imparting to them the benefit of his medical skill. It was in the early part of 1853, that two of Mr. Welton's Chinese teachers were, after being seized, imprisoned and cruelly punished for no other crime than their connection with foreigners. They were eventually banished the place. The emperor Hien-fung, who had recently succeeded to the throne, seemed determined to abridge the privileges granted to foreigners by the late emperor, his father, and to adopt a hostile and an exclusive policy. But the rebellion which was spreading through the empire, and threatening the reigning dynasty, crippled the power of the government, and ensured to the missionaries at this, as at other stations, a liberty of action beyond the intention of the rulers. Though Mr. Welton had not the opportunity of publicly addressing the people, numerous patients came to him daily for relief, to whom he gave

tracts and portions of the Scriptures, and he had many evidences that such works were read and valued.

He reported in 1854, that the discouragement hitherto experienced from the opposition of the literary class and the authorities, with the little apparent effect of missionary labour at this port, would appear to be giving place to a better state of things, in the increasing confidence of the people towards him and his fellow-labourers. Trust was reposed in their words and promises, and the missionaries might travel from place to place in the suburbs and country without any molestation. Books were coveted, and received readily; religious tracts and copies of the Scriptures were circulated extensively by invalids, who, after receiving relief at the hospital, returned to their homes.

In 1855 the trade at Fu-chau increased greatly. This was owing in part to the disturbances at Shanghai, and not less to the great facilities at the former place for internal communication with the tea districts, the entrance to the river also being very advantageous for foreign ships. Fu-chau will doubtless continue to be the chief place of export for black tea.

At this time Mr. Welton's aid was extensively sought: the number of Chinese patients amounted to about 3000. Many of the most respectable officers invited him to visit them at their houses, and every such occasion was used to communicate religious instruction and distribute Christian books. He adds: "As the people become better acquainted with the labours of the missionary, so their prejudices and distant bearing subside; a nearer access and a more ready hearing are thus obtained, and there seems to be a growing desire on their part to know and see more of their

foreign visitors." Thus Mr. Welton continued his work with increasing satisfaction; the many calls on his medical aid gave him opportunity of beneficially influencing the minds of the people, not only to the removing much of the opposition which at first encountered him, but to the instruction of all classes in Scriptural truth.

In 1856 his health became so much debilitated, that he had to visit Shanghai for change of climate and for an opportunity of rest. Though at first the change was beneficial, it was found that a return to Fu-chau, with any prospect of continued labour, was not possible; and ultimately it was deemed necessary for him to go to England, whither he proceeded after a residence of nine years in China.

His medical ability had gained for him a residence within the walls of the city: a concession which up to that time had been yielded to no other missionary. His mild but firm behaviour amidst many most trying circumstances, secured for the mission a character and position before the people, of which his coadjutors largely reaped the benefit. They were allowed to reside in the Mission-house, and also after Mr. Welton's departure. After a residence in England with variable health, a sudden return of indisposition terminated his life and labours in 1858. His heart was set on his great work, in which he earnestly and prayerfully desired to be once more engaged: but his share of the work was done, and he was taken to his rest in heaven.

Our next station is Ningpo, situate in lat. 29° 55′, N., long. 121° 22′ E., which was opened as a port for foreign trade in 1843.

In 1843, Dr. D. J. Macgowan, medical missionary of the Baptist Church of America, arrived in China, and after some months' stay at Hongkong proceeded to Chusan and Ningpo, in which place he went to reside at the end of the same year.

In 1844, Dr. D. B. McCartee, of the Presbyterian Church of America, was also accepted as an officer of the Medical Missionary Society, and proceeded to Ningpo. In the absence of published reports of his labours, it may be said that with diligence and skill these labours were prosecuted, and were followed with success. Besides a dispensary at his own house, Dr. McCartee devoted himself to the visitation of the sick at their own homes. The influence for good which was thus acquired over the hearts of the people was very great. The earnestness and success with which he prosecuted his peculiar work, for which his professional attainments well fitted him, were shown no less in educational efforts. He taught, and preached whenever he had opportunity; his accurate knowledge of the language giving him great power in this department of missionary labour.

A brief visit to the United States was followed by the active resumption of his work at Ningpo, where he has the great delight of knowing that God has blessed his efforts, not only in the relief of physical malady, but to the enlightenment of the souls of men. Not a few of the Chinese have been led to cast away their idols and become devoted and earnest disciples of the Lord Jesus. Surely it may again be confidently affirmed, that no grander work can occupy the talents of the Christian surgeon than this,—bringing the

heathen under the transforming influence of the truth displayed in the gospel of Christ.

Dr. Macgowan reports in 1845, that the hospital at Ningpo was permanently opened in April of that year. Engaged for a time in the acquirement of the language, his labours were carried on in a private dwelling, and afterwards in a large temple in the city. He soon obtained premises suitable for a hospital, capable of accommodating eighteen in-patients, and where great numbers of out-patients also attended. The numerous applications for relief testified to the success with which the work had been begun.

The city of Ningpo is at the confluence of two rivers, about the centre of an extensive alluvial plain, from ten to fifteen miles broad, and twenty to twenty-five in length, and enclosed on all sides by lofty hills. This plain is intersected in every direction by canals, which serve the purposes of irrigation and carriage. The population of the city may be estimated at 250,000, that of the plain at as many more. Contrary to what might be expected, the filthy habits of the people, together with the insufficient interment of the dead, both in town and country, do not seem to be productive of much disease; the climate, as it affects both natives and foreigners, is generally salubrious and agreeable. The extremes of temperature, remarked on the eastern side of the continent of North America, prevail on this coast, but to a far greater degree. The winters at Ningpo may be compared to the winters in Paris, and the summers for a short season, to those of Calcutta.

The diseases which chiefly prevail are intermittent

fever, diarrhœa, rheumatism, ophthalmia, and various cutaneous disorders. It is probable that Ningpo enjoys to a great degree, the exemption from pulmonary affections, common to marshy districts generally, as no case of the disease has hitherto presented itself at the dispensary. Instances of opium-smoking and of suicide, or attempted suicide, by drowning or opium, were brought to the hospital. Dr. Macgowan appeals to the benevolence of Christians to support the work that has been begun in this city, and records the generosity of the foreign community of Bengal, which furnished the hospital with instruments, anatomical models, plates and books, ordered by their means.

Dr. Macgowan (report 1846) states that in the previous October the inhabitants of a neighbouring city, Fung-hwa, rebelled against their rulers and expelled them. The insurrection sprung out of dissatisfaction with the land-tax, and was ultimately quelled, but not before the imperial troops, which had been marched against the insurgents, had suffered defeat before the walls of the city, with a loss of 18 killed and 150 wounded. The Ti-tuh, or general, sent his chair for the foreign surgeon to see the wounded, who had been removed to one of the temples. The injuries were chiefly incised wounds from spears, arrows, and clubs, and were soon healed. Among the wounded was the Che-hien, a magistrate of Fung-hwa, who was under treatment for more than two months. In the retreat he was overtaken by an arrow, which entering the lumbar region, pierced him to the spine. His secretary was killed at his side. He was evidently a courageous officer, in the thickest of the fight the whole time, and

received no fewer than six wounds. On his recovery he expressed his gratitude in the strongest terms, for the surgical aid which he had received from the hospital.

On one occasion some medicines were stolen from the dispensary. The thief, supposing that a quantity of arsenic, about a pound and a half, was foreign flour, mixed it with native flour, and made some cakes. Ten persons partook of them, but the quantity of arsenic was so great as in every case but one to act as an emetic. An old woman who ate but sparingly of the compound died. The parties took all the blame to themselves, and the matter soon dropped.

An earthquake was felt here, as at Shanghai, on August 4, 1846, and was very severe, but the motion was slow and uniform. Some natives of Ningpo say that on September 28, 1828, in the Fung-hwa district, fire issued from a mountain called Ki-Kea (pencil frame). This mountain is very steep, and quite inaccessible, with a crater on one side, near the summit. On the day named great thunder was heard, as if in the mountain, when fire issued from the crater, and continued to blaze for more than two days, ashes being thrown in all directions.

Dr. Macgowan also regrets that unavoidable delays prevented the carrying out of one of the objects he had in view, viz., the communication of anatomical and physiological instruction, by means of lectures to native practitioners and students, which were to be delivered as soon as possible. The chief design of professional labours in this place has been the dissemination of gospel truth, and the conversion of idolaters to the Saviour of the world.

He also accords thanks as richly due to Dr. McCartee for taking charge of the hospital during the period of his own sickness; and in the report for 1848 pays a tribute of respect to the memory of Robert Thom, Esq., British Consul, for many years the active friend of medical missions. During the two years since the last report 4,751 patients had been treated, exclusive of those patients for whom Dr. McCartee prescribed at his own residence, in addition to his personal visitations.

In consequence of wet seasons there had been a great prevalence of quartan fever and rheumatism of a severe character; but, as stated in a former report, little was seen of pectoral affections, which are rare in districts where the various forms of ague prevail.

Throughout this period the coast of the province of Cheh-kiang, in which Ning-po is situated, had suffered much from the depredations of pirates. Even the fishing-boats from Ning-po dare not venture out to sea, and thus many persons suffered. Foreign vessels were hired to convoy trading junks and protect the fishermen. This mitigated the evil to some extent. At one time a fleet of 200 junks was blockaded by the pirates in the harbour of Chusan, although there was present a Chinese admiral, with several war junks. The natives became very impatient at the cowardice of their naval officers; and one morning some poor wretches, charred almost to cinders, the remnant of the crews of junks taken by the pirates, were brought into Tinghai the port of Chusan. The natives, bearing the dead and dying on their shoulders, carried them about the suburb, until an indignant crowd was collected, when an attack was made on the admiral's house:

nothing was spared; the house, furniture, and garden were destroyed, and finally the admiral himself was killed. The officials were but too glad to let the matter pass, as an investigation of the case at Pekin would have proved fatal to themselves.

The punishment of pirates who are captured is summary, but has no effect on survivors. Those who are taken are generally decapitated the same day; their heads are then suspended by their queues from poles, or enclosed in a basket and hung up by the seaside, or on the islands. At one place 120 heads were counted — scores are often to be seen.

During the conflicts with pirates several gunshot wounds, more or less severe, were brought to the hospital. The worst cases of this kind were fire-ball, or what are commonly called stink-pot, burns, which are often fatal. Among the wounded was a man who had amputated his own hand at the wrist. Another amputation was necessary to procure a flap; to this the patient would not consent, but by dissecting out the remaining carpal bones, a tolerable stump was procured. This man, a cooper by trade, had been required by the authorities to perform some work for them without compensation. He chose rather to involve himself and them in trouble, which he effectually accomplished in the manner described, according to Chinese law they being responsible.

Many opium-smokers, desirous of giving up the use of the drug, sought relief from the suffering consequent upon abstinence. When unable to procure the drug, those who have been addicted to the use of it complain of extreme debility, wakefulness, loss of appetite,

diarrhœa, excessive perspirations, pain in the abdomen, "soreness in the bones," and other such-like troubles. The patients who are wishful to refrain are required to practise total abstinence from the opium-pipe, and encouraged to cherish hope and confidence in the prospect of cure; ammonia, wine, and various tonic stimulants, combined with opium, are given according to circumstances, the opium being gradually reduced in quantity till it is wholly discontinued.

An attempt had been made with the models from Paris, a skeleton and plates, to lecture on anatomy before the practitioners and students of the city. Much interest was excited amongst this important class, and if the instruction they received was superficial, subsequent courses may extend their knowledge, and make it available. This display of the mechanism of the human body removed, if their assertions are to be relied upon, the materialism of several of them. The demonstrations will, it is hoped, be resumed on other occasions. One of those who attended these demonstrations was of considerable service to Dr. McGowan in his dispensary. After being instructed he prescribed for many of the applicants, with much success.

Among the patients of the foreign surgeon was his Excellency Lin, the Taou-tai, or intendant of circuit of his department. He had fallen from his horse, by sunstroke, whilst waiting the arrival of the Viceroy, and doubtless owed his life to the remedies that were employed on his behalf.

The work of the hospital was as usual connected with the teaching and preaching of the gospel. The medical missionary labours in connection with the preaching

missionary for the enlightenment and temporal good of this people, in order to the yet more important and primary object of their conversion to the truth as it is in Jesus.

In 1852, Dr. Macgowan reports that the number of patients since the last report (1848) reached to 7,956. In the autumn of 1848, measles prevailed epidemically in Ning-po, from which, though not of a malignant type, several fatal cases occurred. This epidemic prevailed in the maritime districts of the east coast of China and throughout the Pacific coast, till it reached the Samoyeds, among whom it proved very fatal. A Russian captain reported that the measles had spread throughout many of the Russian colonies in Northern Asia, and carried off numbers of the inhabitants. The islands of the Pacific suffered severely from the same disease, and in the Sandwich Islands it was very fatal amongst the aborigines. Fevers also, of varied form, affected the region around Ning-po very extensively, in 1849. Cholera made its appearance in 1851. In its eastern progress this disease reached China through the Straits in 1820. During the summer of that and the following year, Ning-po, like other portions of the empire, suffered severely. Since that time, the disease has not prevailed epidemically, though few years pass without the occurrence of sporadic cases.

One gratifying circumstance connected with the prevalence of cholera, was, that great pains were taken by benevolent persons to make public those remedies that were considered best adapted to arrest the disease. Placards were posted in every quarter, giving directions for the treatment of the various forms of the malady.

All recommended, substantially, the same mode of treatment, which seems to have been taken from a small work on cholera by a physician of Kia-hing, Su-tsze-mi. He states that on the first appearance of the disease, medical men took it for ordinary cholera, and treating it accordingly, signally failed: but observing that the disease arose from derangement of the three things—stomach, lungs, and kidneys, he reversed the practice, and employed remedies for warming and stimulating the vessels. He regarded the disease as arising from "morbific cold," disturbing the harmony of the powers of the system. Others contended that "accumulated heat" destroyed the equilibrium subsisting between those powers, and while he relied on stimulants, they resorted to cooling remedies. His plan was, however, the more successful. To impart vital energy and warmth to the body, the juice of fresh ginger was given, to which various aromatics and bitters were added.

By way of preliminary, sternutatories were employed, and if the patient could be made to sneeze, he was thought to be in a more favourable condition than if insensible to such stimulants. Counter-irritants also were resorted to, composed of salt and garlic, which with moxa were applied over the abdomen; and for the same purpose, foot-stoves were used for the extremities, the feet and legs being rubbed and shampooed. Thus, despite their fanciful theories, the Chinese pursued the same therapeutic course, which in the West has been found most efficacious. By such means native practitioners afforded relief to many, but were powerless when treating the consecutive fever, and hence the

mortality was very great. This epidemic did not extend largely over the empire. It prevailed at Hang-chau several weeks before it reached Ning-po. The villages of the plain of Ning-po suffered most, affording another evidence to the correctness of the opinion that in this part of China the *cities* are the most healthy.

The fevers prevalent here are far more frequently met with in the rural districts than in the city. The filthy condition of Ning-po, its stagnant canals and other nuisances, would seem to fit it, like other Chinese towns, to be the focus of malaria. Yet, however unfavourable to longevity, this condition does not seem to create any peculiar liability to epidemic disease. The drainage of the cities is superior to that in rural districts, and the means of subsistence and of domestic comforts much greater. The most salubrious sites are generally found immediately adjacent to the cities, at a sufficient distance from the fields, more especially from the rice fields.

The sufferers from the use of opium were still attended to in the hospital, and by the means already alluded to many individuals were enabled to discard the evil habit, and were delivered from the thraldom of the drug.

Repeated attempts were made for leave to attend the inmates of the Ning-po prison, but as the authorities were uniformly unfavourable to the design, access to the prisoners could be obtained only under special circumstances. Enough was seen, however, of the place and its discipline, to show that it wanted nothing of the misery and wretchedness common to all Chinese prisons. No pen can adequately describe their hor-

rors; a prison in China is a centre of wretchedness and woe.

The case of a wealthy Chinese is mentioned who was visited at his own house under the following circumstances. He had bought a fowling-piece, and, showing it to his household, let fall some of the gunpowder. One of his wives, who was smoking at the time, stooped to gather it up, and ignited it with a spark from her pipe. The flash caught the whole stock of powder, causing a fearful explosion. The man and his wife died; the other females survived, but were blinded and much disfigured.*

The instruction of native practitioners, by means of illustrated lectures on anatomy, was continued from time to time. These lectures commanded large audiences, and, doubtless, the object had in view by this branch of effort at Ning-po has been to some extent gained.

Dr. Macgowan continued his labours at Ning-po, though suffering at times from attacks of fever which completely prostrated him, and from domestic trial occasioned by the ill health of members of his family, until the year 1859, when his state of health obliged him to leave China for a time, in the hope of returning to his work with renewed energy.

* A somewhat similar case occurred at Chusan, where, instead of the morning and evening gun, a rocket is fired from a perpendicular iron tube. On one occasion it failed, and a poor cripple, dragged himself near to see the cause. As he was looking into the tube, the rocket suddenly exploded, destroying both his eyes, carrying away a portion of the frontal bone and of the brain. From this great injury, he eventually recovered, but remained a pitiable object to look upon. The matchlocks of the military are a fruitful source of accidents of this kind.

A monthly magazine in Chinese, with information on scientific and religious subjects, which was very popular and much sought after, was edited by Dr. Macgowan, who also wrote in 1851 a small work, illustrated by several plates, on electricity, galvanism, and the electric telegraph. The chief facts on these subjects were elucidated and put before the Chinese mind in such forms that the people might appreciate the benefits of western science; its superiority over their own philosophy was demonstrated, and some of the elementary truths of Christianity made evident. The aim of such treatises has been to win the attention of Chinese scholars to the study of natural theology, who perhaps might not care to peruse, much less study, Christian tracts or translations of the Scriptures.

In 1853 Dr. Macgowan published a pamphlet called "The Navigator's Golden Needle," taken from the chapter on the typhoons in the China Seas, in Colonel Reid's work. This essay was published in the hope that its simple axioms would be acquired with facility. These are of such manifest utility in enabling seamen to escape the fury of these storms, so frequent and destructive on the coast of China, that it is probable Chinese navigators will gradually avail themselves of the information here supplied. They may also be induced to make further observations towards perfecting our acquaintance with the tracks of revolving storms in the regions they navigate.

At the end of 1854, Dr. W. Parker, of the Chinese Evangelisation Society of London, arrived in Shanghai. After spending some time at that place in studying the language and occasional attendance on the sick Chinese,

he removed to Ning-po, where he prosecuted his work as a medical missionary. The liberal support of friends in the foreign communities at Shanghai and Ning-po, enabled him to build a commodious hospital, at which great numbers of Chinese were daily relieved, and he was able to labour with most gratifying results. His aid was frequently sought for the wounded in the local riots which prevailed at Ning-po for some time; many Chinese fishermen who had been attacked by pirates were also brought to the hospital. Dr. Parker was thus fully and devotedly engaged when, in consequence of the sudden decease of Mrs. Parker, from an attack of cholera, he had to leave his station in 1859, to bring his children to England. One great cause of his success as a medical missionary is found in the circumstance that he went out to China with the matured judgment of a man who had practised his profession for some time in his native land before engaging in the field of foreign labour.

CHAP. X.

SHANGHAI.—OPENING OF THE PORT.—ESTABLISHMENT OF A HOSPITAL.—NATIVE MEDICAL TREATISE ON VACCINATION.—CHINESE PATIENTS.—STATE OF THE CITIES.—ATTENDANCE ON THE SICK.—SELF-MUTILATION OF BEGGARS.—EARTHQUAKE AT SHANGHAI.—CURIOUS CUSTOMS.—JUGGLERS SWALLOWING NEEDLES.—HYDROPHOBIA.—DROUGHT.—SUPERCILIOUSNESS OF GOVERNMENT OFFICIALS.—GRATEFUL TESTIMONIALS TO THE AUTHOR.

SHANGHAI is a district town of the department of Sung-kiang-fu, in the province of Kiang-su, which, with that of Ngan-hwui, is included under the name of Kiang-nan, having Nanking as the provincial city. Kiang-nan, with the province of Kiang-si, commonly called the Liang-kiang, or the two-river provinces, are under the government of one Tsung-tuh, or Governor-general. Shanghai is situated in lat. 31° 24′ N.; long. 121° 32′ E., on the right bank of the Wusung river, at the point of its junction with the Hwang-pu river, and distant from the Yang-tze-kiang twelve miles. The provincial city of Suchau is about eighty miles distant, and is situated on the grand canal.

The country around the city is a perfect flat, no hills being visible on the horizon. The nearest hills are at a distance of twenty-four miles, in a westerly direction, near the city of Sung-kiang-fu. The ground is dry, and consists of rich alluvial soil, which is very fertile, yielding wheat, cotton, and vegetables, in great

abundance. Rice is also grown in some parts of the plain. The country is intersected in all directions by rivulets and streams, which run in deep channels, into which for the most part the tide flows. The fields are raised so much above the water level, that the ground is well drained and free from swamps. The people seem to be healthy and strong, and as robust and well-fed a race as is usually seen in Chinese cities. The part of the suburbs called Li-kia-chang, which is allotted for the residence of foreigners, is a quarter of a mile outside the north gate of the city, with a river frontage of nearly a mile, and extending inwards as far as may be required for the building of houses. The plot of ground thus selected is tolerably dry and free from any local circumstances that are supposed to generate malaria. It was found necessary, however, to raise the ground before the houses were commenced, on account of the high spring tides in autumn.

In July 1843, the Medical Missionary Society's station at Chusan, which had been relinquished on the departure of foreigners from the island in February 1841, was re-occupied, and the hospital which I opened at the time was carried on with partial interruptions until January 1844. At this period the port of Shanghai being opened for foreign trade, and affording unusual facilities for the successful working of the design of the society, it was resolved to remove the hospital to that city. Whilst at Chusan, the natives were as eager as they had been during the former occupation of the station in 1840, in seeking relief, many of the old patients coming again for themselves, or on behalf of their friends. During a short visit to Ning-po in July 1843,

it was made known that sufferers from bodily ailments would be attended to on application. Within a few days' residence there, about two hundred persons came for relief, and many were materially benefited. Among these was a boy who had extensive caries of the thigh-bone. He had been employed as a workman in a varnish manufactory. This varnish itself is of a most irritating nature, and especially when brought into contact with any part of the body where there is abrasion of the skin. It causes inveterate abscesses in those who handle it constantly, if they neglect to wash their hands in tung-yu, an oil expressed from the seeds of the wu-tung tree, and which is used for the same purposes as our linseed oil. The workmen are particularly liable to be thus poisoned on their first entrance to the manufactory, and the disease in this boy resulted apparently from this poison acting on an unhealthy system. A case of cataract also presented itself, and both eyes were successfully operated on.

Two visits were paid to Shanghai towards the end of 1843, when efforts were made to obtain a house. In January 1844, the hospital at Chusan was closed, and the operations of the Society were begun at Shanghai in the following month. As soon as the hospital was opened, and its purpose known, crowds of people came daily to the house, urgently, often boisterously, requesting to be attended to. The applicants were not only residents in Shanghai, but many came from Su-chau, Sung-kiang, and other cities in the vicinity, and also from the island of Tsung-ming. The confidence displayed by these people, even at this early stage of our intercourse, was very encouraging.

The work of the hospital was carried on in the Chinese house which had been rented by the Society until, in 1846, it was necessary to provide larger and better accommodation for the large number of patients. A building suited to the wants of a Chinese hospital was accordingly erected by the liberality of friends in Shanghai and England. The property was vested in the hands of British residents at Shanghai, conditionally that it be always used for the purposes of a hospital and dispensary for the Chinese. This plan for obtaining the requisite accommodation was judged the best that could be devised, and it was thought that by securing a local control over the affairs of the hospital, more interest would be felt in its welfare, and the prospect of its continued usefulness be more sure. The work which was done in the Chinese house, imperfect as were its accommodations, had doubtless a salutary effect. It was most pleasant to witness the trustfulness of the people, the eagerness with which they flocked to the dispensary, and to have in this way free intercourse in a place where but a short time previously foreigners were unknown.

It is stated in the report for 1845, that "since the establishment of the hospital at Shanghai, endeavours have been made to introduce vaccination among the people. Repeated trials have been made with lymph sent from the hospital at Hongkong, and with supplies furnished by the kindness of Mr. A. Anderson, of Macao, and Dr. Maxwell, in charge of the Madras troops at Chusan: this latter had been sent to China from Madras. These all, however, failed. A fresh supply received from Macao last April has happily been

successful. At this time the Colonel of the Chinese garrison of this city, How Ta-jin, requested that one of his daughters might be vaccinated, which was done, and finally another of his children, and thirty of the soldiers' and neighbours' children were vaccinated at his residence. Twenty more children were vaccinated at the hospital.

It is to be hoped that in a few months, as this expedient becomes known, its practice will be extensively adopted. Inoculation is much practised by the native physicians, the greater number of Chinese children undergoing this treatment. The *modus operandi* is by introducing into the nostrils a piece of cotton wool impregnated with variolous lymph, or dressing the child in the clothes that have been worn by another who has had the small-pox; in a few days the disease shows itself. The superior advantages of vaccination, however, will, it is hoped, secure for it as much favour here as in Canton, where it was introduced by the late Mr. Pearson, and an establishment for vaccinating all applicants has for many years been maintained by the Hong merchants.* The pamphlet drawn up by that gentleman, and translated into Chinese by Sir G. Staunton, has been republished with corrections and some slight additions, and distributed largely in various parts of the surrounding country. At Nanking there is said to be an establishment for vaccination, but hitherto no definite intelligence has been obtained respecting it.

"The Preservation of Infants by Inoculation" is the title of a short treatise published by a Chinese physi-

* Vide p. 120.

cian. He supposes that small-pox arises from poison introduced into the system from the mother's womb, which is said to be proved by the occurrence of this disease but once during life. This poison is, in the Chinese system, associated with the principle of heat, and remains concealed till it is developed through the agency of some external exciting cause. There being thus a constant liability to this disease, it is very advisable that means be adopted for modifying its virulence. The means is found in inoculation at such times and seasons as appear most advantageous, and when the system of the patient is in a healthy condition. The ancients possessed the knowledge of inoculating for (or planting) the small-pox; it has been handed down from the time of Chin-tsung of the Sung dynasty (1014 A.D.), and was invented by a philosopher of Go-mei-shan, in the province of Sze-chuen. The disease, when it breaks out spontaneously, is very severe, and often fatal. whereas, when introduced by inoculation, it is generally mild, and casualties do not occur oftener than once in ten thousand cases. The author concludes his introductory remarks by saying, "to discard this excellent plan, and sit waiting for the calamity, is much to be deprecated; it ought to be pressed upon the attention of all as a most beneficial thing for their adoption; and all persons that have children ought to confide in it, so that the lives of their children may be preserved." The ten rules which are to be attended to then follow:—

1. *Regarding Variolous Lymph.*—This is the fluid that comes from the small-pox pustules, and must be taken from a child who has the mild form of the disease; whether arising spontaneously or from inocu-

lation, the pustules ought to be round or pointed, and of a clear red colour, the fluid abundant, and the crust which comes away clear and consistent like wax. The lymph, or the crust rubbed down with a little water, can be introduced into the nose, as above mentioned. Another mode of inoculation is drying the crusts, reducing them to powder, and then blowing this powder up the nose. This is called dry inoculation. After seven days fever appears, and in three days more the spots show themselves. In another three days the spots become pustular, and in three days more the crusts form, when the whole is completed. If the inoculation does not take effect it may be repeated in fourteen days.

2. *Seasons.*—The spring and autumn are the most favourable seasons for inoculation, or any time when the weather is moderate. In the very hot or the very cold months it ought not to be done.

3. *Choice of Lucky Days.*—A lucky day should always be chosen. The 11th and 15th days of the moon must be avoided.

4. *Management of the Patients.*—During the process of inoculation it is of great importance that strict rules of management be adopted in regard to heat and cold; with attention also to diet, and the avoidance of any cause of alarm or fright.

5. *At the time of inoculation.* The child must be examined, and the state of health ascertained; strict attention must also be paid to the state of the family, and if the child be sick the operation must not be performed. All the children ought to be inoculated when they are one year old; if the health be good this ought by no means to be neglected.

6. *Restrictions.*—The room of the inoculated child ought to be clean, airy, and well lighted; all excitement must be avoided, and the child kept quiet and placid.

7. *Promise of the Eruption.*—After the inoculation, and before the fever appears, there suddenly arise on the child's face several pustules like small-pox; these are called the "Sin-miau," promise or belief eruption; it is the forerunner of the disease, and the evidence of the poison having taken effect.

8. *Repetition of the Inoculation.*—If, after waiting fourteen days, the fever does not appear, should the season still be favourable the inoculation may be repeated.

9. *Mode of Action.*—The inoculation must affect the viscera, and then fever commences. The nose is the external orifice of the lungs; when the variolous lymph is placed in the nose its influence is first communicated to the lungs; the lungs govern the hair and skin; the lungs transfer the poison to the heart; the heart governs the pulse, and transfers the poison to the spleen; the spleen governs the flesh, and transfers the poison to the liver; the liver governs the tendons, and transfers the poison to the kidneys; the kidneys govern the bones; the poison of the small-pox lies hid originally in the marrow of the bones; but when it receives the impression from the inoculation it manifests itself and breaks out externally.

10. *General Rules.*—Inoculation is to be performed when there is no disease present in the system; good lymph must be selected; a proper time chosen; good management; and then all will go well.

The retired Lew-lan, respectfully assenting to the

imperial decree, compiled the above very important regulations regarding inoculation, and placed them in "The Golden Mirror of Medical Practice." They have been discoursed upon, and revised with much care and attention by celebrated physicians of later times.

Soon after vaccination was introduced at Shanghai, a Chinese physician of some intelligence, from Su-chau, desired instruction, and was taught. After witnessing the mode of its performance and the characters of the vesicle, he was supplied with lymph, and some copies of the work on vaccination. He reported after his return to Su-chau that many children had been brought to him, and it is hoped that he has been able to go on with his good work, conferring benefit on the people around him.

The work of the hospital was transferred to the new building in July, 1846, to which the Chinese, readily appreciating the improved accommodation, flocked in large numbers. Patients came from all quarters; and during this year many were received into the wards of the new hospital who were suffering from severe burns and gun-shot wounds received in engagements with pirates. On one occasion seven men were brought in, severely burnt by an explosion of gunpowder on board a Shan-tung junk. One of them, it appeared, for the purpose of a trick, or to frighten his companions, had foolishly placed a lighted paper match over the jar of gunpowder. The fire fell, however, into the magazine, and all were suffering from the explosion. Six of them soon recovered; one poor fellow, whose clothes had caught fire, was so much burnt in the abdomen, back, and legs, that his recovery was improbable. He de-

termined, however, to go with his friends, as the junk was returning to his native place; but, probably, did not long survive his removal. A large number of accidents, fractures of the limbs, concussion of the brain, severe contusions and wounds, received at the European buildings, from the giving way of scaffolding and the falling of the workmen from the tops of the houses, were also admitted to the hospital during this year. Some of the more severely hurt of these patients died: the great majority recovered, and were enabled to return to their work.

The work of the hospital was carried on with much success during the two following years. The building had cost, including the price of the land, $3200. To make up this sum $1000 had been borrowed from Messrs. Turner and Son, who, through one of their partners, T. W. L. Mackean, Esq., had kindly advanced the needed amount. This was gradually paid off, and the whole establishment cleared of debt; allowing thus the entire amount of the subscriptions to be used for the special objects of the hospital.

The early part of the year, and also the summer of 1849, were periods of much rain, which flooded the country, and destroyed the crops. The effect on the health of the inhabitants was also very injurious. They suffered much from sickness, chiefly from bilious remittent fever and dysentery, from which large numbers died. Many of the European residents suffered from these diseases, and some deaths occurred in September and October. The setting in of dry weather early in the autumn, tended to destroy the seeds of disease, and when the frost commenced both Chinese

and Europeans rapidly regained their health. The Chinese say, and experience corroborates the assertion, that diarrhœa and dysentery prevail chiefly inside the cities, while ague is the prevalent form of disease in the open fields and in agricultural districts.

Although the year 1849 was an unhealthy season, Shanghai is not to be regarded as an insalubrious city. Sickness, to an unusual extent, sometimes prevails in cities of the western world, and during that same year, typhus and scarlet fever made fearful ravages in some places in Europe; and whilst cholera caused a great mortality in other parts of the world, China was mercifully preserved from its visitation. It is true that during certain periods the Chinese suffer much from ague, diarrhœa, and dysentery, but when their habits are remembered, the wonder is that they do not suffer more. Their cities being undrained, are always in a most filthy state; the canals into which the tide does not rise, are filled with putrid matter of every kind, and are seldom, if ever cleansed. The surprise is that the inhabitants can live at all among so much filth in the canals, streets, and in their own houses. Several Europeans had to leave Shanghai on account of failing health, and return to their own country. This is not to be wondered at; they were unused to the climate, and all cannot remain with impunity; sometimes even those who seem to be the strongest are the first to fail. During the six years the port had then been open, the mortality among the foreign residents had been small, especially considering that this was a newly occupied locality, where many things combine — imperfect and unfinished dwellings,

extensive excavations of new ground, and filling up with earth, or mud taken from the river bank—against the enjoyment of undiminished health.

To enlarge the benefits afforded by the hospital, a dispensary was opened at this time at the London Missionary Society's chapel inside the city, at the back of the public tea gardens. This place was kept in operation for several successive years, many patients, including shopkeepers, and others who could not go so far as the hospital, resorting to it for relief on the two days in the week, when it was open.

A friend at this time drew attention to the circumstance of a constant bubbling in a well in a village about three miles from the hospital, called Tsing-ngan-sze. On investigation, the well, which was in front of a temple, was found to be about eight feet square, and about ten or twelve feet deep, faced with blocks of limestone, and enclosed by a substantial wooden paling. About three feet of water were in the well, and from the bottom bubbled up a large quantity of gas, as if a body of water were being constantly thrown up. The people call it Hai-gan, or 'eye of the sea,' and say, that the water neither diminishes nor increases, nor ever runs dry; the fact is, that the water in the well is merely drainage, and the gas rises through it. On holding a light over the agitated surface the bubbles exploded with a pale blue flame, which lasts as long as the light is applied. The water has a slightly brackish taste, but small fish were swimming about in it. The gas is probably carburetted hydrogen, and perhaps emanates from a layer of peat or coal at some depth below the surface. The villagers do

not use the water for any purpose, regarding the well as sacred. They were much surprised when the gas was ignited, and did not seem to be aware of its inflammable nature.

The effects of the wet season of 1849, upon the people were very serious. They suffered much from the scarcity and dearness of food, and in some parts of the country there was actual famine. Many of the rich natives subscribed largely for the distribution of rice, and kitchens were established in the city and surrounding villages, where the rice was cooked and given to the destitute, but sold at half the usual cost to those who could afford the purchase. Great relief followed upon this plan, and to facilitate the benevolent design the foreign residents subscribed liberally for the purchase of tickets on these kitchens, which were duly distributed in various parts of the city. There was also a large distribution every morning at the hospital, and during the pressure of the distress many poor starving creatures were materially assisted. On the return of spring there was plenty of work in the fields, and though the cost of rice was high, the poor were able to provide food for their families. During the winter great numbers had flocked into the city from the surrounding country seeking food, but when the chance of work returned, they left the city and went home again. The distress was felt over a very large district of country—throughout all that part of the province south of the Yang-tze-kiang — the villagers proceeding to the large cities, as those from the neighbourhood did to Shanghai, similar means for their relief being employed, and large sums of

money expended by the wealthy inhabitants on their behalf.

In addition to this beneficence a large establishment was opened near one of the city gates, where children under ten years of age were received, fed, clothed, and taken care of. At one time as many as 1500 children were lodged at this refuge, where they were kept till the end of the spring, and then sent to their homes. The establishment was then broken up.

During the year (1850) the hospital was in full operation, with large numbers of patients in attendance. The members of the London Mission, Messrs. Medhurst, Muirhead, and Edkins, were assiduous in their endeavours to impart Christian instruction, preaching to the patients waiting in the hall, reading and speaking to those who occupied the wards. The distribution of Christian books and portions of the Scriptures went on as usual. The patients when returning home were well supplied with these works, and in this way Christian knowledge was often carried to distant regions, otherwise beyond our reach, by patients who had travelled thence to avail themselves of the benefits afforded by the hospital.

Though the summer was very hot there had been little disease which could be attributed to the climate. The effect of climate on the health both of European and native is deserving of notice. Generally speaking, the ill effects are not experienced in the hottest period of the summer. When the scorching heat of the day in autumn is succeeded by cold heavy dews at night, those who are exposed to these atmospheric changes are peculiarly liable to fever and other diseases.

In autumn the nights begin to be cold, when frequently the dew runs off the tiles in such quantities as to resemble the falling of rain. Through the hot summer the liver is in a state of great activity, pouring forth its bile profusely, the skin at the same time perspiring at every pore. When the cool autumn weather begins, this activity on the surface is suddenly checked, and the blood probably congested in the liver and abdominal organs: torpor of the liver frequently ensues. In addition, the malaria from the vegetation in its season of decay is powerful, and Chinese as well as foreigners are more exposed to sickness at this than at any other period of the year. Continued fever occasionally supervenes; but the more common effects are, in some instances, attacks of ague, in others of dysentery and diarrhœa.

There is a form of ague in Shanghai, observed in a few cases, from the peculiarities of which the patients suffered severely. Every day, sometimes on alternate days, there is a slight cold stage of ague, hardly perceptible, which is quickly followed by the hot stage. Then the hands and feet alone begin to perspire most profusely, the water standing in beads on the skin, and even running off the hands, while the rest of the body is quite dry. This variety of ague, with its confined or local perspiration, is accompanied by intense headache and more general suffering than is usual in common ague. The Chinese look upon this as a very troublesome form of the disease. Quinine and arsenic are, however, as efficacious in removing it as other forms of intermittent.

The hospital report for 1851, gives a case of severe

injury to the perinæum, with rupture of the urethra, accompanied by much suffering and also great danger to life, but from which the patient eventually recovered. The full report is not necessary, but the following observations, made at the time, have an interest of their own: — "Independently of the case and its treatment, the most interesting circumstance about it was the unremitting watchful care shown for the patient's comfort by his father and an elder brother. They kept constant watch over him by day and night; no care or trouble seemed too much on his account, and the tender, assiduous attention manifested was very pleasing to witness; no mother watching over her child could have displayed more affectionate kindness than did these men, rough and ragged as they were, though mere common labourers." The report for the following year, 1852, narrates a similar case of good nursing. The pilot of a junk, who had been wounded in an attack by pirates, was brought to the hospital in a very dangerous state. The captain and owners of the junk, with some of the sailors, were constantly with this man, two or three of them watching by him day and night with most untiring attention. It was most pleasant to see men of this class so anxious for the comfort of a sick comrade. Other similar instances occurred of genuine kindness, showing that, however grasping and selfish the Chinese frequently show themselves, true human feeling will find ways of expressing itself Instances have, indeed, been known where persons, finding a sick relative an incumbrance, have brought him to the hospital and left him there without any attendant, merely for the purpose of getting rid of him.

Such are very exceptional cases however. The friends of the patients, on the whole, make kind nurses, doing all that is needful for their comfort.

The question is often asked why the Chinese suffer so much from diseases of the eye? It may be replied that probably the ordinary amount of ophthalmia is not much greater among them than among the people of other countries. When, however, the eyes are severely affected with inflammation, unless there be immediate relief, the organ being so delicate, a speedy change in its structure follows, and the eyes become permanently marked, and to a certain extent deteriorated. Thus it happens that the native surgeons being unable to arrest disease, many persons are met with, in whose cases the results of inflammation have seriously affected the state of the organ.

An accumulation of such cases of chronic ophthalmia naturally ensues from neglect at an early stage of the disease. The sudden changes of the weather in the north of China, account for much of the inflammation of the eyes which is observed. The thermometer in the spring and autumn months, will sometimes fall 30° or 40° in the twenty-four hours; or after one or two days, with southerly wind, there will be a sudden change to northerly wind with much rain, followed after the rain by sharp cold. There is always a large increase of acute disease of the eye after these changes.

Early in this year there was established in the hospital ground a kitchen for the cooking and distributing of rice to the poor. It was kept open for nine weeks, and 34,000 bowls of rice were supplied to the destitute applicants. In November the kitchen was opened

again, and kept open till the following spring. The funds were supplied by special contributions, several of the foreign residents having wished that steps should be taken for the relief of those who were almost starving around them. The Chinese beggars that prowl about the streets are perhaps the most degraded specimens of the mendicant race to be met with anywhere. No kind of provision is made for them, but they are allowed to go about asking for alms, and almost demand relief from all residents and shopkeepers. They seem to think they are entitled to stand at the doors of the latter, where they will annoy them in a variety of ways, until a copper cash is bestowed, when they will move on to the next house. The giving of cooked food was found to be less liable to objection than other plans of relief, as it could not be exchanged for money, which would certainly have been spent in vicious indulgences. Indeed, the beggars ate the rice greedily and at once, and would ask for more than the one large bowl full which was the allowance for each person.

A beggar presented himself one day among the out-patients, with violent inflammation of both eyes, having the lids enormously swollen. He stated that he had been helping a plasterer working at a new house, and while raising a bucket of newly-mixed lime on to the scaffolding, some of the lime had fallen into his eyes. On examination, the eyelids were found stuffed full of mortar which was lying between the lids and the ball of the eye in a solid mass, very difficult to break away in small portions, and impossible to remove altogether. The man being told that the lime could not have been

introduced in such large quantities between the lids by merely falling into the eyes, he said that the accident nevertheless happened exactly as he had described it, and that while looking up the lime had filled his eyes. Further inquiry, however, showed that the man had intentionally filled both eyelids with lime for the purpose of destroying his sight, that so he might attract sympathy in his forlorn condition, and obtain money from the benevolently disposed. His state was very lamentable; violent pain in his eyes, both corneæ in a sloughy state; excessive suppuration flowing from the conjunctivæ, and the eyes totally destroyed. This plan is only one of several resorted to by the beggars to deaden the eyesight, and make themselves objects of pity. They also sometimes blind their children in early life by means of lime, and by puncturing their eyes with a coarse needle to destroy them.

A similar case to the above was afterwards seen, of a man who had effectually ruined his sight, but who denied having put lime into his eyes, some of which, however, was found under the lids, though the greater part had been removed after the mischief was done. This man had started as an ordinary beggar, urging his complaint of poverty, and begging for money. Not finding this plan sufficiently lucrative, he had tried the effect of changing his profession into that of a blind beggar. He was eloquent in his bitter complaints of the agony he suffered from the state of his eyes, and of the great loss he had sustained from his becoming blind, but this was rather with the view of getting some copper cash than effectual relief for his eyes. Finding that he was accused of purposely destroying

his sight he came to the hospital only twice, and not receiving any money, probably thought he was wasting his time, for he did not return.

The daily routine of the hospital at this time was as follows:—"At half-past seven in the morning the bell rings, and shortly, such of the in-patients as are able, with the servants and others on the premises, assemble in the hall, when a portion of Scripture is read and prayer offered in Chinese. At nine whatever may be wanted early in the day by the in-patients is provided for. At half-past eleven the bell rings for half an hour, to notify that it is the time for the general work of the hospital to commence. So soon as the out-patients are assembled, a religious service in Chinese is held for the instruction of all present, one of the missionary brethren kindly undertaking this duty. This ended, the female out-patients are admitted into the dispensary, their ailments inquired into and suitable medicines supplied; then the male patients are dealt with in like manner. Bamboo tickets are given at the close of the Chinese service by the door-keeper, and the patients are summoned to the dispensary by twos, according to the number of their tickets. They are then examined separately, and the medicine given; any case requiring special attention or any operation, is reserved until the others are disposed of. As the patients leave, paper tickets are given to them stating when they are to return. From 50 to 100 or 150 out-patients are attended to four days in the week. On the other two days the dispensary in the city, formerly alluded to, is opened, where the same general plan is adopted. After the out-patients have all been seen the in-patients are

further attended to, and the money for food given to such as are poor and unable to provide for themselves. The premises are then looked over; the medicines to be used the next day given out in bulk to be made up; and all the other details of the establishment arranged. In the evening the in-patients are again visited; and at all times accidents and cases of sudden sickness are received. There may be much that is imperfect in carrying out all these arrangements, but it is the endeavour to do each day's work as efficiently as circumstances will admit, and it is hoped not without benefit to those who seek relief."

In winter and spring, when the weather is wet, the people of Shanghai suffer much from catarrh, cough, and rheumatism; in summer and autumn should there be a continuance of wet weather, diarrhœa and dysentery are the prevailing disorders. Intermittent fever also exists to a large extent, but it is remarkable that this latter affection is not more general. The city and the surrounding country present an extensive flat of alluvial soil, which, when dug into the depth of four feet, yields water in abundance. Were the surface irrigated for the purpose of rice cultivation, intermittent fever would prevail here as at Chusan. The cultivation of cotton, wheat, and many kinds of edible vegetables, however, is carried on in the district, and as this does not require irrigation the surface is for the most part dry, except during the season of heavy rains. It is worthy of note, that catarrh, dysentery, diarrhœa, and such diseases appear to take an intermittent or periodical character among the natives and also among Europeans. The latter are also more sub-

ject to intermittent fever in all its forms than the natives, who are, of course, thoroughly acclimated. European children are especially subject to this aguish influence, and almost all the disorders of children assume a periodic character. Notwithstanding the rapid changes of temperature in this part of the country, the heat in summer being at times 100°, and the cold in winter as low as 14° or 15°, and the changes in spring and autumn frequently so sudden as that the thermometer will fall 30° or 40° in twenty-four hours, — it is gratifying to know that Europeans have on the whole enjoyed so large a measure of good health.

On the 4th of August, 1846, at a quarter to four A.M., a severe shock of earthquake was felt at Shanghai, which lasted about sixty seconds. The vibration of the earth appeared to be in a direction from east to west, including one severe shock, followed by a second slighter shock, and the continuance of the vibration or oscillation for the above space of time. The motion of the earth was great, but slow. Had an equal motion taken place in a shorter time much damage to the city must have ensued. As it was, few accidents occurred, but the Chinese were much alarmed. This earthquake was perceived over the whole of the southern province of Keang-nan, and the northern part of Cheh-keang, but its action must have extended over a wider space. The centre of the earthquake was probably in Japan, and may be supposed to have resulted from a violent eruption of one of the large volcanoes in that country. On the night of the same day another slight shock was felt. These slight shocks of earthquake are not uncommon in Shanghai, but the natives generally allow

that the one above noticed was much more severe than usual.

At about eleven o'clock one night a man was noticed standing at a door in one of the public streets. He held a lantern in his hand, which he occasionally waved above his head, calling in a most plaintive voice upon some absent person. He was answered from within the house in the same tones. It was found upon inquiry that a child in the family was suffering from fever, with delirium, or, in the native phrase, "his soul had gone away—was rambling abroad." In such a case the father hangs up on the side of the house a paper figure of Buddha, which he burns. Then, lighting a candle in a lantern, he holds it at the door, and calls in a mournful and beseeching tone for his child's soul, "A-sze, hwui lae," "A-sze, come home," to which the person who is watching the child replies, "A-sze lae tsae," "A-sze has come back." This continues till the delirium subsides, or some change has taken place. The wandering spirit is supposed to see the light, and hearing the call, returns to its usual abode.

The recklessness of Chinese patients is seen in the instance which follows. A man came to the hospital very anxious to have removed a large tumour, which, situated on the forehead and pendulous, prevented the use of the right eye. He was told the tumour could be removed, but he would have to stay a few days in the hospital. This he said he could not do, and went away. In a few days he returned, having, he said, made arrangements with a friend to take his place on board his junk, and now he would stay as long as was required. The tumour was removed, under the in-

fluence of chloroform; the day after there was considerable swelling of the face, which subsided by the third day, when the patient said he could not stay in the hospital, as his junk was going away. Being remonstrated with for his deception, he said he had only promised to stay until the operation was performed, as that was all he wanted. He was told that he would not be hindered if he insisted on going, but he would go at serious risk to his health, and also to his eyesight, and that he must not think that because the operation was easily performed, he could at once go about as usual. After awhile he promised to stay, and was left in the ward in bed. A few hours afterwards, however, it was found he had opened the window and decamped, carrying off the bedding with him, and was not afterwards heard of.

Similar carelessness is manifested frequently by patients with diseases of the eye. They have applied when suffering from severe purulent ophthalmia, extensive ulceration of the cornea, &c. They are attended to, and warned that unless they come regularly every day they will lose one or both eyes. They will come for a day or two, but finding the disease somewhat relieved they do not return for five or six days. In consequence of such neglect, the disease having returned, to the permanent injury of the eye, they are asked why they did not come every day? to which they reply "they had not leisure; it was inconvenient to come so often." On being told that their eyes are now seriously injured, perhaps one or both destroyed, they say, "they are sorry they did not do as they were told; but that they had not time to take care of their eyes." This

folly was remarkably shown by a young man who held a good situation. He had severe purulent ophthalmia, and was told to attend at the hospital every day. He came for a few days, and the virulence of the disease was checked. He then absented himself for a week, during which time the cornea of both eyes had sloughed, and the eyesight was entirely gone. He said that he knew he had been told to attend regularly, but when his eyes began to improve, having some business at a distance from Shanghai, he went to attend to it. Meanwhile the disease had returned, and he now bitterly lamented his own folly and inattention.

The usefulness of the hospital was proved one day, by an old woman and her son, who were found sitting on the steps, the pictures of distress. The man was in much pain, from fractures of his arm and forearm; since the accident, not being able to pay their rent, they had been turned out of doors, and were now utterly destitute. They were taken into the hospital, placed in one of the wards, and supplied with food. The man's fractures were attended to, but being an opium-smoker, he was much emaciated, which, with the intense pain he had suffered in his arm, for several days made him as pitiable an object as could be imagined. Medicine was given to remove the craving for opium, and the pain in the fractured arm was soon relieved. The old woman and her son were made comfortable by good food and proper attention, and by the time the broken bones were united, the patient was cured of his opium-smoking, and they left the hospital, very thankful for all the attention they had received.

A juggler was on one occasion exhibiting before a crowd, and performed a needle-trick as follows:—He first pretended to swallow twenty needles, singly, and then a piece of string, to which they were to be threaded, and afterwards drawn out by a hooked wire. On passing down the hook this time, however, the needles had slipped too low, and both hook and needles became fixed in his throat. After several attempts, he extracted eight or ten of the needles, and was then brought to the hospital. On passing the finger into the throat, the needles were distinctly felt, and the hook found to be firmly fixed at the back of the pharynx. It was finally detached, and drawn out; and with some difficulty four more of the needles, with a portion of the string, were removed. The rest of the needles could not by any possibility be reached, either by the finger or by forceps, and the worst feature of the case was that the needles, which were all attached to the string, pierced the œsophagus in different directions. The patient suffered much from dyspnœa, with great agony, from a sense of suffocation in the throat; an emetic was given, in the hope that some of the needles might be loosened by the vomiting, but only one came away. A probang was passed during the evening without difficulty, but without benefit; leeches were applied, with considerable relief for a time, and hot fomentations to the neck, but great tumefaction both external and internal took place, and finally the man died, five days after the accident. He was a poor feeble fellow, the victim of opium-smoking, and other vicious habits. The state of his health, along with the great uncertainty of any bene-

ficial result, precluded the idea of performing any operation.

In September 1844, a man applied at the hospital with a tumour on the scalp, to which an escharotic application had been made ten days previously by a native practitioner. This had the effect of destroying a large portion of the tumour, and much of the surrounding skin, which were now in process of separation. In a few days the tumour sloughed off, but with it came away a portion of the pericranium of the parietal bone, of the size of a dollar, leaving the bone bare. The man was in good health, and though he had had severe pain in the tumour, he had none in his head. In the middle of the month he had to return home; by this time the bone was dry, but the granulations round it were healthy; he was supplied with dressings, and told to keep the parts clean. In November he returned, being a sailor on board a bean junk, from Kwan-tung (Moukden). The wound had been kept clean, and the bone, which was now loose, was removed. The surface beneath was healthy, and in good condition, and soon healed, much to the man's delight.

The following plan adopted by the beggars is the most extraordinary one that has been met with. Four men were seen one day crawling on their hands and knees one after another on the ground, and calling on the passers-by to give them money. They had lost their legs a few inches below the knee. The stumps were thoroughly cicatrised, but were pyramidal and very tender, the cicatrix of the skin being drawn tightly over the bone. On inquiring into the cause of

this surprising loss of the limbs, the men said it arose from an accident which occurred at a fire, where their legs had been burned off. It was ascertained, however, that beggars, in the southern province of Shan-tung, were in the habit of removing their limbs for the purpose of exciting sympathy, and that the operation was performed by a beggar who made it his profession. He ties a piece of thin string as tightly as possible round the middle of the calf, drawing it closer from time to time until mortification ensues. When the soft parts are separated the bone is sawn through, and in time the stump is covered with skin. This operation causes great suffering, and many die in the process; but those who survive the amputation are congratulated by their friends, as having gained the loss of their limbs and an increase of fortune, from the contributions of the benevolent.

The report for 1853 enumerates many cases of severe injury, some of which had been accidental, but the larger proportion consisting of gunshot wounds. A large number of the patients came from great distances, which was a pleasing feature of the year's labour, as showing that the hospital was known and appreciated in the country around as well as in the immediate locality. The year was one of much vicissitude. In February, during the panic caused by the supposed advance of the Tai-ping army upon Shanghai, the views of its commanders being regarded as inimical to foreigners, the hospital was almost deserted. On the restoration of confidence the patients returned; but when the city was taken by the Triads the attendance again declined. In the autumn and winter, however,

not only was the number of out-patients very large, but the in-patients were so many, that the wards and the large hall were crowded with the sick and their attendants.

The particulars of the capture of the city in the autumn of this year (1853), are spoken of in another chapter. Individual cases at the hospital, in connection with the siege, are here remarked upon.

The dispensary in the city, which had been kept open till July, was then closed for the summer on account of the great heat. After this the troubles in the city prevented regular attendance there, but many patients were seen at various times at their own homes. A case of fracture of the arches of the dorsal vertebræ was brought to the hospital. The man was on board his boat, passing down the Yang-king-pang, or city creek, when, during a thunder storm, a large willow tree was uprooted, and fell on him, breaking some of his ribs, and causing the above injury. He lived for several weeks, and died at length, worn out and exhausted, from the paralysis and its consequences. Notwithstanding the greatest care, the formation of frightful bed-sores could not be prevented, and before his death the spinous processes of several vertebræ were laid bare. He was regularly visited by one of the missionaries, giving much attention to the exhortations he received, and leaving the impression on the missionary's mind that his visits had not been in vain.

A woman was admitted with compound fracture of the os calcis. She had been attacked by an Imperial soldier, and was trying to escape, when she fell through the floor of an upper room of her house, and came to

the ground on the point of the foot. The foot bent on the leg so suddenly, and with such violence, that owing to the artificial constriction of the feet in Chinese women, the skin above the heel was rent across for two inches, and the tendon Achilles tore off a portion of the upper and back part of the os calcis, which protruded at the wound. The piece of bone was replaced by tilting the skin over it, and the lips of the wound brought together by adhesive plaister. A splint was applied, and the case did well.

After the various attacks on the city, many wounded were brought to the hospital. Frequent amputations and other operations were performed, of which the majority progressed favourably. Many of the Chinese bear operations and lingering complaints resulting from injuries, which take long to repair, very well. They escape many of the effects of inflammatory processes, as their constitutions do not readily assume inflammatory action. They do not, however, as a class, sustain well the drain on the strength caused by excessive suppuration, the frequent consequent of severe injuries.

The value of European surgery, and the utility of the hospital, in a country like China, may be seen in many instances. Application was made on behalf of a boy who was bleeding copiously, and his friends, unable to check the hæmorrhage, were in great alarm. Playing with another boy, he was wounded by a sharp knife, which was accidentally drawn across the bend of his arm. All the large veins were divided, and he would probably have bled to death. Pressure carefully applied stopped the bleeding, and the boy did well.

The same evening, a workman, who had a cup thrown

at him, one of the broken pieces of which had opened the temporal artery, was brought to the hospital, covered with blood. The artery was at once tied, but several weeks elapsed before the man recovered from the excessive hæmorrhage.

A Chinese boy was firing a pistol, when it burst, and lacerated the palm of the hand; a piece of the barrel passing through the hand opened the deep palmar artery. The bleeding was very great, and it was some time before the artery could be secured. Inflammation and suppuration followed the wound, but the hand was eventually saved.

The rice-kitchen was not opened during this year (1853). While the city was in a state of siege, little employment could be found by the poorer classes, who were suffering more than the same class outside. It was thought desirable to aid the former, and a quantity of rice having been provided by funds specially subscribed for that purpose, it was taken into the city, as opportunity allowed, and distributed amongst the destitute people. A large quantity of provisions which had been slightly damaged was sent to the hospital by the kindness of a friend. This also was taken into the city, and was most gladly received by many, to whom it proved a seasonable aid in their state of destitution.

Several friends of the hospital, wishing to enlarge the accommodation for patients, proposed to build more wards. The work was begun, but had to be discontinued, the flight of cannon balls over the ground making the site unsafe. The money was spent in adding verandahs to the present wards, rendering them much more useful and commodious. Other arrangements

also were carried out for the benefit of the patients, and to the great improvement of the hospital.

The religious services were maintained as usual by the missionaries of the London Missionary Society. These were attended by large numbers of the soldiers and other patients. The former of these, more especially, coming from different and distant parts of the empire, have heard the truths and facts of the Christian religion, of which they were before ignorant. As they returned to their own provinces, they would carry with them some recollection of what they had heard and seen, as well as portions of the Holy Scriptures and tracts, which were placed in their hands. In this way the benevolent character of the institution combines with the Christian object of the missionary, and both co-operate in the promotion of "Glory to God in the highest, and of good will among men."

The siege of the city continued in 1854, and the number of gunshot wounds brought to the hospital was still large. The number of patients during the year was greater than ever before; more than 12,000 individuals, in-patients and out-patients, having been under treatment. During the previous year there had been much fighting near the hospital, and several persons were struck by cannon shot close to the premises, into which also shot fell at different times. This year the fighting had been more to the westward, at places further removed from the hospital, though, during one or two of the attacks on the city, many bullets fell in the hospital compound, and also in the hall and dispensary, but happily without striking any one. Owing to the uncertainty of access to the city on certain occasions, it

was not possible to keep up the dispensary within the walls with any regularity. Many wounded people were attended to in different parts of the city, and occasionally patients were seen at the London Mission Chapels.

One morning, at daybreak, a shot from the city fell in one of the imperial camps, and struck three men who were in bed. One of them was killed on the spot, the others were brought to the hospital, one with his leg shattered, and a large wound in the thigh; he had bled so much that he died in an hour. The third had his right arm destroyed, but when he was laid on the table to be operated on, he could not lie down from severe pain in the chest. On examination it was found that the sternum was fractured, and that three or four ribs were separated from it, though the skin was not broken. It was supposed that his arm must have been outside the bed clothes, and the ball, after carrying it away, struck him in the chest through the thick coverlet. The operation was, of course, not performed, and after lingering in much agony for a few hours, the man died.

A young man in charge of a shop in a village was attacked by a soldier, who, with others, was plundering. The soldier struck him on the loins with his sword, inflicting a large and very deep wound, from which there was copious hæmorrhage. The friends of the young man passed a long girdle tightly round him, and brought him to the hospital. On removing the girdle the blood poured forth in a large stream, evidently from one of the large lumbar branches of the aorta. After repeated trials this vessel could not be secured; thick sutures were passed through the skin and the

bottom of the wound, which fortunately included the artery. A large pad was placed over all, and kept in its place by a bandage. There was no more hæmorrhage, and the wound healed.

Another young man, in the pawnbroker's shop at Kung-wan, was also attacked by a soldier, who struck him with his sword on the head and other parts of the body, causing compound fracture of the frontal-bone, destruction of one side of the orbit, and of one eye; compound fracture of the ulna, and of one finger, besides other slight wounds. The patient was confined to bed for a long time, but eventually recovered, though the remains of the eye continued for some time to give him pain.

A man was brought in one morning whom a Triad had caught and tried to behead, taking him for an imperial soldier. Unable to effect his purpose, owing to the man's struggles, he yet inflicted most severe injuries upon him. The man had a wound on the forehead, which passed through the frontal bone, and raised up a portion of it; a wound on the face, through the molar bone and part of the upper jaw; another wound on the lower part of the face, which cut through the lower jaw; two deep wounds in the neck; one on each shoulder, one of which penetrated the shoulder-joint; a wound at the back of the neck, exposing the vertebræ of the spine; and one on the fore-arm, causing compound fracture of the ulna; besides numerous severe flesh wounds on the body and limbs. The man had literally *to be sewn together again*. After much suffering for more than three months he finally recovered.

A beggar was brought in, who had been struck on the leg, with a cannon ball, causing compound fracture of the tibia and fibula; the limb had also been roughly used afterwards, and, in fact, was dangling about, so that the ends of the bone had inflicted much injury on the soft parts. The man was in such a miserable state of health, owing to bad food, that amputation of the limb, which seemed to be the only thing to be done, was out of the question. The limb was dressed, and splints applied; for a long time the man's life was in great danger, bed-sores formed on his back, and sinuses ran up the leg; but having better food than he had previously been able to obtain, he rallied out of his weak state; the bed sores healed, the bones united, some portions of dead bone were thrown off, and the man got well, with a sound limb.

An imperial soldier was brought to the hospital on another occasion. He had received a gun shot wound in the thorax. The ball passed through the sternum and traversed the chest, without making a wound in the back, and lodged between two ribs, under the skin on the left side. There was a great bleeding from the wound for some hours, and it was thought he would bleed to death; he also coughed up a quantity of blood. Opium was freely given, to relieve the excessive pain, and he was made as comfortable as possible, although the case was regarded as almost hopeless. In a few days, however, the expectoration ceased to be bloody, and after much inflammation of the lungs, the man gradually began to recover. The wound healed, and before he left the hospital, the ball in his back was removed, lest it should cause future mischief.

These cases have been selected from a large number of a similar kind, to show the general character of the work done at the hospital. In the midst of so much disorder and confusion in the country, it was well that Christian foreigners, had the power of quietly carrying on an institution of this kind; affording relief to many diseased and wounded persons, who would otherwise have dragged on a miserable existence.

At certain times, there were in the wards imperialists wounded by rebels, rebels wounded by imperialists, and rustics who had suffered from both parties; but there they all lived together in peace, receiving help themselves, and often, and cheerfully, helping each other.

Early in 1855, the Triads evacuated Shanghai, under circumstances narrated in another chapter. Two days after the termination of the siege, some enormously large Chinese guns, thirty-pounders, were removed from the battery. One of these had been charged, and laid for the north gate of the city, and the officer of the gun thought proper, before removing, to discharge it. The ball fell amongst a crowd of people, who were going in at the gate, three of whom were instantly killed; another was so much injured, that he died shortly afterwards, while a fifth lost his arm and leg. This one was brought to the hospital, bleeding profusely, and though with little hope of saving life, the arm and leg were amputated immediately. By this means, no more blood was lost, but the man had been already so much weakened, that he died the same afternoon. The officer who had caused this loss of life was condemned to decapitation, but the matter was arranged by the

payment of a sum of money to the friends of the deceased.

Early one morning, a six-pound ball, from the city wall, entered a house near the hospital, and wounded a woman lying in bed on the shoulder. Her baby, which was asleep on her arm, was killed. The woman was brought in, having compound fracture of the head of the humerus, with much injury to the soft parts of the arm and neck. She remained a long time under treatment, and eventually recovered, though the arm continued very weak, and she could do but little with it.

Owing to the prevalence of northerly and easterly winds, the summer and autumn months were especially unhealthy. The Chinese suffered severely, and many of the foreign residents were also affected. The forms of disease most frequent were dysentery and diarrhœa, of unusual intensity, and intermittent and remittent fevers. The intermittent fever was frequently accompanied with diarrhœa, which is a combination very difficult to relieve, showing that the liver and spleen are much affected. The common fever and ague epidemic at this place was, during this year, very obstinate, and less amenable to quinine and arsenic than usual. The attacks of this disease recurred again and again at intervals of a week or ten days, so that many patients had for a long time to take weekly doses of quinine. The usual interval of recurrence of these attacks is three weeks, but this autumn it was from seven to ten days. Cases of inflammation of the liver, and jaundice, followed by ascites and diarrhœa, presented themselves in unusual numbers. There was also a great fatality

among the natives in the agricultural districts around Shanghai, from a species of typhus with petechiæ. Owing in a great measure to the number of sick, it was with great difficulty that the harvest was gathered in; the cotton remained long on the plants before it was picked, so that much of it was lost. The cotton crop was a large one; and there is a proverb among the people, that when the season suits the cotton it kills the peasants. This certainly was the case this year, for the growers were said to die like flies. In addition to the above diseases, cholera carried off large numbers, and in no year since the opening of the port has this fearful malady been so severe. In July and August there were many cases, and it seemed as though the visitation of this scourge would be heavy, but after August had passed it disappeared.

A case of hydrophobia was received, the only one which had presented itself at the hospital. A strong, powerful Shan-tung man, from the junks, had been bitten in the finger by a dog some weeks previously, and the wound had healed long before any symptoms of disease had shown themselves. When brought in he was suffering frightful agony; chloroform and other remedies were tried, but without effect. After remaining some time, he requested his friends to take him back to his ship, where he in a little while died. It was hard to see the poor man enduring such torture without the possibility of affording him any relief. Again and again he begged that he might be killed at once, even going on his knees to beseech that his throat might be cut, to put an end to his sufferings.

Two instances of trismus, or lock-jaw, occurred during the year. A soldier, while in action, had had his hand lacerated by a splinter of wood. The hand was much torn, and a piece of wood had been lodged between the metacarpal bones for several days before he sought relief; his jaw was then becoming stiff, and he had pain in the back of the neck, and difficulty in swallowing. The piece of wood was removed, and the wound dressed, whilst large quantities of opium were given to him; but he gradually grew worse, and died in much suffering. The other case was that of a man employed in a lighter, or cargo-boat. A heavy beam of wood had fallen on his leg, producing compound fracture of the ancle, and much laceration of the foot. Immediate amputation was recommended, but he would not consent. The ancle was replaced, and the wounds dressed, but extensive sloughing came on, followed speedily by lock-jaw, under which he soon sank and died.

The larger proportion of contusions and wounds during the year have been in the case of labourers and workmen at the foreign buildings; in the former while engaged in carrying goods to and from the cargo-boats, in the latter from the falling of building material, more especially of scaffolding, which, from the careless manner in which generally it is fastened, frequently gives way when loaded with bricks and mortar. Ten or a dozen men were repeatedly brought in at the same time, all more or less severely injured by such accidents, and several such patients died during the year.

It was stated in the report for 1856, that during the previous ten years, the work of the hospital had been

uninterruptedly prosecuted. The premises had been built and paid for, current expenses had been fully met, there was no debt on the establishment, and a small balance in the hands of the treasurer. The funds thus used were derived chiefly from the liberal contributions of the foreign residents, to whom all thanks are due. The actual work of the hospital was commenced in 1844, and for two and a half years was carried on in the eastern and southern suburbs until 1846, when the present building was erected. Patients, not only from the immediate neighbourhood, but from many towns and cities in distant parts of this and the surrounding provinces, and great numbers of sailors from the Shan-tung and Fuh-kien junks, have constantly resorted hither for relief.

The weather during this year (1856) was unusually dry. Only thirty inches of rain fell, while in the previous year the amount was fifty-four inches. A very little fell in spring, and hardly any in July and August, the amount for the two months being only one inch, whereas the usual quantity is from twelve to twenty-two inches. Not only was the want of rain severely felt in the immediate neighbourhood, but all the region north of Shanghai suffered much from the same cause. The country to the south, at Fu-chau, Amoy, and Canton, was deluged with rain, as if all the moisture brought up by the southerly monsoon had been deposited on the south-coast line, to the loss of the interior and north of the empire.

The effect of the drought on the crops was serious. The cotton suffered severely, and the rice fields to a yet greater extent. The price of this latter commodity was

doubled; and it was feared the people would experience a great scarcity of food. The fear was to a large extent verified, and, as on former occasions of scarcity, a large quantity of rice was distributed at the hospital, twice or thrice a week, to the poor.

The year, on the whole, was healthy. There was little of any violent kind of fever among Europeans or Chinese. The natives suffered somewhat from typhus and cholera, but the latter appeared only in occasional cases, and did not assume an epidemic form.

A man was brought to the hospital who had received a severe laceration of the leg from a fall through the broken lid of a coffin, while he was stealing wood in a Chinese cemetery. A thick, solid splinter was with considerable difficulty withdrawn from the wound; it had penetrated deep behind the knee, close to the head of the fibula. Great inflammation ensued, followed by profuse suppuration. The patient was beginning to improve, but trismus set in, and caused his death.

Another day a man came who had fracture of the bones of the fore-arm. These were put into position, and splints applied. The next day he returned, but without the splints, and wanting his arm to be again dressed. Being asked what had become of the splints, he confessed that he had used them as firewood to cook his rice with. He repeated this trick, when he was told if he did not take care of the splints he should not be admitted to the hospital.

Another, suffering from an inguinal hernia, had a truss fitted to it, which gave him relief, and he was able to resume his occupation. The truss was given to him. In a few days he returned, saying that the truss was

very comfortable, but he wished to know how much would be *paid* him for wearing the instrument every day!!

One morning a man was carried in, bleeding profusely from a deep stab in the back, so that his clothes were saturated with blood. With some difficulty the hæmorrhage was stopped and the wound dressed. After the blood was washed from his body dry clothes were given him, he was put to bed, and fed and nursed carefully for some days. He soon recovered, and the first use he made of his returning strength was in stealing the clothes of the hospital servants while they were engaged in their work, and offering them for sale in the road. The clothes were recovered, and the man dismissed, with a deserved reproof for his ingratitude.

These instances are mentioned to show, that while as the rule the Chinese are grateful for the benefits they receive, there are a few who do not appreciate the attention paid to them. This good work is carried on, however, not so much for the sake of the gratitude of the objects of it, as to show them that we wish to do them good for Christ's sake. In labouring for their benefit we seek not theirs, but them. We wish to prove to them, in a manner which admits not of dispute, that the Gospel is not merely a form of words, but that it moves its disciples to seek the welfare of others. Amidst discouragements and various trials we remember that our heavenly Father is ever kind, even to the unthankful and to the evil.

The people of all classes, wealthy and poor alike, have evinced a proper sense of gratitude for the relief which the hospital has afforded them. Their conduct,

in this respect, is in striking and somewhat amusing contrast with that of some of the Government officials. Several of these who have been under medical treatment at the hands of the foreign surgeon — the Taou-tae, or governor of the city and the surrounding districts, was for some time a patient, and was cured of his malady—have shown that they were really grateful. Most commonly, however, they would have their condescension seen on applying to the hospital on any occasion, and that the foreigner was greatly flattered when they requested his services. One day a messenger from the office of the Taou-tae brought the governor's card to the hospital, asking for a visit. On being asked who was sick, the messenger said he did not know; he had been told to take the card to the hospital, and desire that the visit might be paid as soon as possible. This mode of application was not in accordance with the politeness common in such a case, and a trick was suspected on the part of a subordinate in the office of the Taou-tae. To prevent mistake the request was complied with, and on arriving at the place the door-keeper said he did not know who was sick, and referred the inquirer to the office of the secretary. There, one of the subordinate clerks came forward, and in a consequential manner said he "wished to consult the foreign surgeon, as he had heard of his name and reputation. He therefore desired his services." On being asked if it was he who had sent the card of the Taou-tae, he said it was. "But was it polite of you to use your master's name for your own purposes?" This question was put pointedly, as several of his colleagues had come into the office to see what was going on, be-

fore whom he evidently wished to appear important in causing the foreigner to wait upon him. To be supposed wanting in politeness, when he had wished to show off his condescension to the barbarian, evidently made his "greatness" uncomfortable. "Why did you send so hurriedly, seeing there was so little cause for it?" "I had suffered from a want of appetite and other symptoms of indigestion, and wished for some medicine." He was told that if he wanted medicine he knew where the hospital was, and by applying there he could have his wants supplied. "You have been guilty of a breach of good manners in sending under false pretences to bring the surgeon to wait upon you, instead of applying to him yourself." He still wanted to be prescribed for, and wished the visitor to take some tea. The twofold favour was quietly declined, and he was told to come to the hospital, where he should be relieved of his indigestion, and also cured of his opium-smoking, of which habit he was the victim, as the sickness he complained of proved. At first he denied this, but finally acknowledged it, when he said he would go to the hospital, and apply properly for what he wanted. This man was only a subordinate, but in this conduct he was imitating his superiors, and acting in the usual manner of Chinese officials. To yield to such pretentiousness would only excite ridicule; to be provoked to lose your own temper would give such folly an advantage, and the Chinese themselves would despise the "hot-tempered barbarian." To appeal to their politeness and their doctrines of propriety, on which they pride themselves, never fails, when quietly done, to make them ashamed of themselves, and

offer an apology. They will respect the foreigner all the more, who, seeing through their pretences, with good feeling, and by a stroke of happy temper, will turn the rudeness they have shown upon themselves. A pretty long acquaintance with officers and people of all ranks, and on all occasions, has shown this to be the best plan of dealing with them in their supercilious moods. It has seldom, if ever, failed to secure their regard.

The year 1857, unlike its predecessor, when from want of rain the cotton crop had failed, was a wet season. The cotton was much injured by rain and wind in the autumn; in many places it was almost destroyed. The rice crop, owing to the same cause, was much below the average. In September there occurred a severe typhoon at the time of spring-tide, when the accumulation of water in the river was so great as to flood all the flat country to the depth of two feet. This with the continuous rain made the autumn season unhealthy; fever and ague, and a form of low nervous fever prevailed; diarrhœa and dysentery were also common, and many Europeans as well as natives suffered.

Throughout the spring and autumn an epidemic of purulent ophthalmia prevailed over a large district of country around Shanghai. This was a severe affliction on the people, great numbers losing one or both of their eyes. Numbers of the afflicted came to the hospital, and were relieved; but it was sad to see day by day one after another coming from distant parts of the country, but too late for relief, with one or both eyes entirely injured or destroyed. Such an epidemic

of this disease had not visited this place since the port was opened.

A man came one day who had an enormous falling tumour on the back, pendent from the nape of the neck. It must have weighed at least half a hundred weight, and was the largest tumour ever seen at the hospital. Frequently vast tumours of the rectum, hanging even below the knees, are met with; but this was like a large bag of rice on the man's back, and he complained much of the great weight he had to carry about with him. He did not wish to be operated on, even if the tumour could have been removed with safety, which was doubtful; he applied for medicine for some other disease. It has been already stated that the frequency of these diseased growths amongst the Chinese, is to be accounted for by the fact, that they are neglected when at an early stage; besides, that Chinese surgeons do not know how to remove them by operation.

Two valued friends of the hospital were this year removed by death. They were amongst the original trustees, and had always been warmly interested in its welfare. The Rev. Dr. Medhurst died immediately after landing in England, in January; and T. C. Beale, Esq., in November. The latter gentleman had been on the committee since the commencement, and had materially assisted in the establishment of the hospital.

The religious services amongst the patients were steadily maintained throughout the year as usual. The character and number of persons present at these services, which were conducted by members of the London Missionary Society, supplied an excellent op-

portunity day by day of making known the Gospel of Christ. Those who have been educated in a Christian land, and have lived amid the light and privileges of religious truth, cannot fully estimate the high moral and spiritual advantage which they have thence derived. It becomes their solemn duty, however, to communicate the blessing to others around them, that they also may realise the elevating and sanctifying effects of Christian truth. This will be fully attained in China when her people, enlightened and influenced by true religion, shall imbibe the spirit and obey the precepts of the Divine Redeemer of men.

The most pleasing circumstance in connection with the hospital has been, that while its direct object has been the relief of physical sufferings, it has furnished such ample opportunity for extending the knowledge and exhibiting the highest and noblest charity of our common Christianity. Many have there listened to the truths of our holy religion, and it may be reasonably hoped that while favourably impressed with the kindness, unbought and disinterested, which has been displayed to them, their souls have been touched by the "better things" of the Gospel of Christ. In the evangelisation of China, as the hospital and its associations become more extensively known, and the advantages it brings more widely diffused, it will doubtless be seen how largely this Christian auxiliary of the medical mission has aided the spiritual as well as the temporal welfare of this numerous people.

At the end of the year 1857, the writer of these pages left the scene of his labours in Shanghai and proceeded to England. Dr. Hobson, for many years

resident at Canton, being driven away from that place at the commencement of the troubles there, kindly consented to remove to Shanghai and assume the charge of the hospital. This he now did, and with much efficiency. The account of his work there in 1858 is given as the sequel to the remarks upon the Canton hospital in a previous page.

Upon Dr. Hobson's departure to England, on account of his health failing, Mr. Collins, of the Church Missionary Society, kindly undertook the superintendence of the institution. The details of the work were carried out by a Chinese pupil, Chun-fu, who is spoken of in the account of the education of Chinese youths. In this way the hospital has been kept open, and its efficiency maintained for the last two years.

Dr. James Henderson, of the London Missionary Society, arrived at Shanghai early in the present year (1860), and has taken the hospital under his charge. Admirably fitted for his work, he will doubtless be able to devote himself heartily to every department of work to be carried on there. He is a well-educated surgeon, and bears with him the good wishes of those who had the pleasure of knowing him and appreciating his attainments.

Such is the history up to the present time of the hospital at Shanghai. It may be stated that, during the writer's engagement as a medical missionary, for the last twenty years of his stay in the East, he has attended to more than 200,000 individual patients, in Java, Macao, Hongkong, Chusan, and Shanghai. By far the larger proportion of these were in Shanghai, where he was located for fourteen years. It is a cause

of great thankfulness to have been able to do so much amongst the people; nor can it be doubted that the labour thus spent has helped to show the utility and value of medical missions to the heathen.

At various times patients when quitting the hospital have spontaneously desired to leave behind some permanent record of their gratitude for the benefits they had received, and have asked permission to place a tablet in the hall expressive of this feeling. These tablets are made of wood, beautifully varnished, of a white colour, the inscriptions carved into the wood and varnished black. The name of the writer and the account of his disease are written at one end in small characters, and painted black or red according to the taste of the writer. They are very ornamental to the hall, and interesting to those who see them, and are pleasing memorials of the patients themselves.

One of these, placed on the inside of the sloping roof against the beams, runs thus:—

Taou-tsung-ke-tuh — "Following the doctrines of Christ":—thus recognising the principle on which the hospital is established. The writer states that for several years he had been afflicted, but, coming to the hospital, he was relieved and able to resume his occupation. Another—

Shin-e-miau-shau—"The skilful surgeon with wonder-working hand." This was written by a man to whose great delight his tumour had been removed.

Another recorded the gratitude of a patient who for many years had suffered much from fever and ague, from which he could obtain no relief.

Tih-tseh-wan-chau — "The power or knowledge that

fertilises or enriches ten thousand islands : " that is, the whole empire.

Chun-nwan-kiang-ching — " Like spring reviving the cities of the great river." And another declares,—

Hang-lin-chun-nwan—" As spring revives the forests of plums, or plum orchards."

On my departure from Shanghai at the end of 1857, several Chinese who had at different times been under my care, desired to send a letter of thanks, which was forwarded some months afterwards. It is written on fourteen large rolls, in gilt characters, on a crimson ground, and is beautifully executed. Though the letter contains much of fulsome compliment, it may not, perhaps, on account of its oriental character, be without interest, and a translation follows :—

" Translation of a *souvenir* presented to Mr. Lockhart by some native merchants and gentlemen in Shanghai on occasion of his return to England in 1857 :

" RESPECTFUL EULOGIUM.

" Memento of the meritorious excellences of the English surgeon, Mr. Lockhart, with a parting record on occasion of his return to his native land.

" Some people are met with in the world, of whom a good action was never told, and who are parsimonious to the last farthing; such deserve not to be ranked among men. Among those whom we esteem there are those who are naturally tender and compassionate, who are ready to assist those in straits, and with a laudable generosity of disposition apply themselves to succour the poor and destitute; but the benevolent efforts of such do not extend beyond a single village or town, and

their reputation is confined within given limits. But seek we for those whose skill can reanimate decay, whose benevolence is typified by the summer shower, who consecrate their talents to the benefit of foreign lands, and practise their art in distant regions; such are truly difficult to be found,—rarely have they been seen.

"Mr. Lockhart's intelligence is the gift of Heaven, while his talents are worthy of his country; his stature is of portly bulk, his nose of graceful prominence; in front he is a very Buddha *, and his fist is of spherical outline. Like Lew-Ching-tsze †, of ancient times, he may be termed the nation's gem; or like Jin-Yew-nien ‡, in the days of yore, who was looked up to as the juvenile sage. Freedom from avarice he accounts his treasure; his habitual feelings are those of indulgence towards others; unwearied in doing good, a benign influence attends his every action. On the alert, lest he should err in his personal conduct, he reflects the watchful virtues of the worthies of old. His words are no empty sounds, but are always to the point, and every applicant meets with a ready response. In the transaction of business he is guided by benevolence and justice, and his easy deportment surpasses the models of antiquity; he guards his inner man as he were approaching water, or standing by an abyss, and with amiable condescension he stoops to the humblest condition. By such praiseworthy bearing he was soon able to gain over the hearts of the multitude.

Formerly, when he thought of visiting our poor

* Literally, "Golden Grain," one of the names of Buddha.

† A minister during the Tang dynasty.

‡ A famous scholar during the six dynasties.

country, undaunted by the long and weary voyage, and the raging of the snow-white waves, he bade adieu to his sovereign, and warbled the 'Bright blossom' * ode. Exerting his efforts to expedite his journey, he ploughed the Jasper Ocean, and while the sails whistled in the breeze, he faced the trials and dangers undaunted. His large and liberal mind was well qualified to justify the favours of his sovereign, while he appreciated the onus of his commission; of youthful age, he was unanimously selected for the service of his country, and his office was the counterpart of the monthly ministers of state. Truly he was the genius of his country, and he came to China to benefit the people.

"Thus we see this surgeon is skilled in the arts of Ke-pih †, and Hwang-te; in disposition he is tender to the helpless; he stands on a par with the philosopher Ko ‡, and follows in the footsteps of the renowned Tung. § He divides his medicine into classes superior, medium, and inferior; and nicely discriminates every variety of vapour, sound, and colour. Cutaneous complaints yield to his treatment; his instrument is unfailing in result; internal distempers are under his control, nor does he need a long deliberation. With the receipt-book up his sleeve ‖, and the thrice broken arm,

* The 3rd ode of the 1st division of the 2nd part of the She-king; an ode on the despatch of an envoy.

† A minister of the ancient Emperor Hwang-te; both minister and emperor are said to have been profoundly skilled in medicine.

‡ A well-known Buddhist writer, anterior to the Christian era; generally known by the name of Paou-po-tsze.

§ One of the immortals; famed for his skill in medicine.

‖ An allusion to the above-mentioned Ko, who used to carry book of famous prescriptions up his sleeve.

verily he is a physician of repute, for the succour of mankind; the first of his class, and the founder of his fame.

"Hence his door is thronged by the sick, and the seats are all occupied by those seeking treatment; as one leaves, another comes; with consultation, and reply, he thinks nothing of the trouble. He distinguishes the true from the false; examines the case and tends it with care; he draws from his blue bag a genial restorative, while the smoke floats over his alembic. When the person becomes unnaturally sensitive to the changes of the weather, he removes the cold tendency as he were penning a memorandum, and restores comfort without the aid of medicine. When the bodily functions of a child become disordered, it is not necessary to enjoin abstinence from meats. Equity he esteems weighty as the hills; wealth he regards lightly as the autumn leaf. He has built a series of neat chambers for the convenience of his patients, and retains a corps of servants to wait on the sick. He receives no fee for his labours, but his ground is a grove full of almond-trees.* The medicine he dispenses is of a superior character, more efficacious than the water from the orange well spring.† His works of merit are uninterrupted; his fame is spread to the ends of the earth; bystanders look on, and talk, telling of his pri-

* A reference to a famous physician of old, who would receive no reward from those who had derived benefit from him, but recommended each patient to plant an almond-tree before his door, as an acknowledgment of his gratitude; when, in time, his ground was filled with these free-will offerings.

† This alludes to one of the *Sien*, "immortals," who had a well, the water from which was a cure for all complaints.

vate virtues; they rejoice to unite in sustaining his efforts, and strive to testify their admiration.

"Now he speaks of returning to his country on board a double-decked ship. May he commence his journey on a fortunate day, and the way be marked out by felicitous stars; by favour of the wind may the waves be subdued for a thousand million miles. Having been absent from his country and his native place for ten years and more, he will diligently hasten to the palace of his sovereign and exhibit the report of his labours.

"Her Majesty will express her approbation, and extol the unfailing success of his practice. His colleagues will praise his excellence, for the unerring precision of his views. Habitually correct and respectful, having never dishonoured his royal commission, further favours will be bestowed by his sovereign, and all will pray for blessings on his head.

"We now wish to do honour to his laudable propriety, and recall to remembrance his innate benevolence. We will play a few airs on the flute, and listen to the tune of the Dragon refrain. Dejectedly we bid adieu at the eastern gate, and with wounded hearts we gaze over the water to the south; turning around at the river's brink, the sand becomes yellow, and the grass has grown white; shaking hands at the bridge over the stream, the snow becomes black, and the clouds are obscure; we are ashamed to say that we cannot carry Tsoo-Teih's switch*, but, as a small

* Tsoo-Teih was a scholar of the Tsin dynasty, who wishing to keep pace with his friend Lew-Kwan, undertook to whip his horse, as they rode on together.

apology, we present the whip of Jaou-Chaou.* As the variegated sails move gently along, we look far over the distance, — happy the man! May he return again next year, when the migrating swallows come back in the spring. If our words are compared to the croaking of the frog, we heed it not, but freely express the feelings of our hearts.

"Presented by the undersigned thirty-two flourishing Chinese mercantile firms. (Here follow the names.)

"The following twenty-four wealthy Chinese gentlemen also subscribe to the above. (Here follow the names.)

"Ta-tsing dynasty, Hien-fung, eighth year (*mow-woo*, 1858), mid-spring month, on a fortunate day."

* A counsellor during the Chow dynasty, who presented a whip to his compatriot Sze-Hwuy, on occasion of his departure to another state.

CHAP. XI.

THE TRIADS CAPTURE SHANGHAI. — THEIR CHIEF. — THE CITY INVESTED BY THE IMPERIALISTS. — TRAITOROUS PROVISION SELLERS. — THE WOUNDED IN HOSPITAL. — PROGRESS OF THE SIEGE. — ATTACK ON THE FOREIGN SETTLEMENT REPULSED. — IMPERIALISTS DEFEATED. — THE FRENCH ATTACK THE CITY. — FAMINE. — FLIGHT OF THE TRIADS. — CONFLAGRATION. — THE CITY REBUILT.

THE allusions in the foregoing account of the hospital at Shanghai, to the capture and siege of the city in 1853–54, call for a more detailed notice of that event —one of the many occurrences which of late years enacted in China, have revealed to the eyes of foreigners more of the internal condition of the country, and of the relation between the government and people; it is also a link in the chain of events, which are steadily advancing the empire to her acknowledged place amongst the nations. The record which is given is of what passed under personal observation during the siege.

When the adherents of the Tai-ping rebellion came down the Yang-tsze-kiang and captured Nanking, the members of the Triad Society, who thought the opportunity favourable for the attempted overthrow of the Manchu dynasty, organised themselves into various societies. One of these, "the small-knife or dagger" branch, after failing in their attempt on Canton, suc-

ceeded in taking Amoy and Shanghai. For some weeks previously it was known that they were organising themselves; as they had been seen, on more than one occasion, meeting in a temple outside the walls of Shanghai, and enrolling adherents. As they did this openly, without interference from the authorities, they were not supposed to have any particular object in view.

On the morning of September 4th, my servant aroused me by the news that the city had been seized. A body of men had collected near the north gate, and at dawn, when the gate was opened, had rushed in, killed the gatekeeper, and hastened through the city to the office of the magistrate. They put him to death in his office as he was hurrying to see the cause of the uproar, and took possession of the other gates of the city, setting guards over them, and holding the city at their mercy. They next threw open the jail, liberating the prisoners, and seized the city treasury, in which was half a million dollars of Imperial tribute, which should have been sent away the day before, the loss of which the collector had to make good out of his own purse. On going into the city in the afternoon all was in confusion. The Triads, in a state of great delight at their easy conquest, had issued placards calling the citizens to join them as adherents of the Ming (or native) dynasty, and denouncing the Emperor and the Manchu as tyrants and enemies to China. The scene at the Taou-tae, or Governor's office, was a strange one. The holder of this office had been a Hong merchant at Canton, officially known as H. E. Wu-kien-chang, but to foreigners by the name of Sam-qua. He had fled,

and being a Canton man, the Triads, who were Canton and Fuh-kien men, had favoured his escape, relying on his promise not to act against them. This promise he violated on the first opportunity, by leading troops against the place. . His house and office now were thoroughly ransacked of their many valuables, and the arms and ammunition found there and in the other official houses in the city at once appropriated.

In this office the Triads held their council, if such a rabble conclave could be so described, where, amid noise and turbulence, every one, with furious gesticulation, shouted his opinion. The chief was the local grand master of the society. He was a Fuh-kien man, by profession a sugar broker, and by habit a confirmed opium-smoker. In his personal appearance he was mean and contemptible, but he was said to be of a quiet, self-reliant spirit. He had for his subordinates men of some courage and energy, but of utterly unscrupulous principles. They did not shrink from any cruelty in carrying out their ideas, and for gain would commit any atrocity upon the people. The citizens kept aloof from these Triads, the shops were closed, no business was done, and everything thrown into utter confusion.

On the second evening, in consequence of a great uproar in the city, a report spread through the foreign settlement that the Triads intended an attack upon the settlement. This was in the hope of plunder, and because the foreigners would not espouse their quarrel. The apprehension was increased, as the night before some musket-balls had struck the French consulate, which was not far from the walls. As this was sup-

posed to be intentional, the tumult in the city on the following evening was taken as the preparation for an attack upon ourselves. In company with a Chinese servant I went into the city to inquire the cause of the uproar. On passing through the suburbs, to within half a mile from the little east gate, we found a large body of the Triads in the street armed and in great excitement. I approached them and asked what was doing amongst them, and why they were armed? They said that a number of Fuh-kien men, in the junks on the river, were planning an attack on the city in order to a share in the plunder, and they had turned out to drive them back, and expected a fight. Passing through this body of men to the gate, and finding all quiet, I returned and spoke to the men, telling them, in reply to their question as to what I was doing at that late hour in the suburbs, that I had wished to know the meaning of the noise we had heard in the city. On communicating the result of this visit to the city, the alarm in the settlement subsided. In fact, these Triads had sufficient sense to be assured that a collision with the foreigners would not in any way help their cause.

For several days they had their own way, and supposed they were approaching to the restoration of the Ming dynasty. They constituted themselves officers, and issued all their notifications in the name of the dynasty. Their chief object for the present, however, was the getting of money. In addition to the half million of dollars from the city treasury, large sums were obtained by contributions levied on the shops and wealthy inhabitants. The majority of the people were not much molested, and remained in a state of sullen

indifference. The Triads also visited several towns and villages in the neighbourhood, and took the nominal charge of them, having first dispersed the officials. This was a season of the year when a large fleet of junks from the north and from Fuh-kien were in the Shanghai river. Some of the more cunning of the Triads, with valuable plunder and money, contrived to get on board the Fuh-kien junks and slip away with their booty. Very soon the vessels of all kinds began to leave; they dropped down to Woo-sung, at the mouth of the river, and in a few weeks the anchorage was wholly free of native craft.

At about the end of September a large body of imperial troops arrived. They marched at once to the city walls, expecting an easy conquest, but the Triads turned out and repelled the attack. The imperialists retreated, carrying their wounded with them. Many of the latter were brought to the hospital, which was situated about half a mile from the city wall, on the road between the city and the camp, the latter being a little to the westward of the hospital. By the middle of October the camp was regularly constructed, with a mud wall and a ditch around it. A large number of soldiers had been brought together, and the force was continually increasing. The Triads had burned down all the houses between the city wall and the ditch, cleared away the rubbish, blocked up all the gates except one on the eastern side, near the river, and prepared for a siege.

The fighting now became constant. The troops that had first arrived soon tired of their occupation. Every fresh band as it arrived was sent to the walls in the hope of success; but their ardour cooled under

the resistance they met with, and the only result was that many wounded men were sent to the hospital. The greater part of the wounds were flesh wounds, of more or less severity, but there were many serious injuries which occasioned numerous amputations just at this period. It was common for the soldiers who were recently arrived, and were desirous to win laurels, to advance boldly up to the walls with their scaling ladders, until repulse made them cautious. Thus warned they would advance as far as the hospital with great alacrity; and here finding themselves exposed to the fire from the walls, they would slacken their pace and pause, discharge their matchlocks, flourish their swords and flags, and then retrace their steps, satisfied with this, their day's work.

Such was the routine for many days. When the day's fighting was over, the country people from the neighbouring villages would approach the walls with rice, vegetables, fish, and other provisions, which they sold to the citizens. These supplies were hoisted over the wall, and the money thrown down to the sellers. Hundreds of people might often be seen along the top of the wall bargaining for these articles, for which the price was faithfully paid, as the citizens were depending on this market for their food. This lasted until the Imperialists, weary of their slow progress, besieged the place more closely. To stop the supply of provisions to the city, they caught several villagers engaged in the trade, and cut off their ears as a warning to others; this failing, they next beheaded a few, and stuck the heads on poles in the road, with labels attached to them, "Traitorous provision-sellers."

After a month's fighting, nothing had been done for the recovery of the city, which seemed to be held more firmly by the Triad party. I find, however, from the hospital register, that I had amputated for the wounded soldiers, two thighs, two legs, two arms, and one foot; removed a large number of balls from various parts of the body; had many severe compound fractures; many cases of gunshot wounds in the abdomen and thorax; and shortly afterwards a note of the performance of thirteen amputations of the larger limbs in six weeks. The hospital was crowded after every contest by soldiers carrying in their wounded comrades or officers, who were attended to without delay, and as many of them as could be sent on to the camp. Those who could not be removed had to remain in the hospital, where frequently sixty or seventy badly wounded men have lain at one time. All the available space was occupied with them and their attendants; beds had to be placed on the verandahs round the hall, and in the dispensary; the in-patients' wards could not accommodate them. After an unusually hard fight the scene in the hospital hall was terrible to behold: men lying in every part of it severely injured; many dying; others bleeding to death from wounds in the thorax and abdomen,—the place a scene of suffering and blood.

It was only by very hard labour and perseverance, and by giving directions to the hospital servants (all natives) I was able to properly attend to all these wounded. As they came in they were at once examined, the treatment to be adopted decided on and carried out. In this way much relief was afforded to those who would otherwise have been wholly neglected, or

unskilfully treated. The soldiers who stood by were often much surprised to see how much might be done for a wounded comrade. One circumstance in connection with foreign surgery which impresses the Chinese mind is the mode in which a violent hæmorrhage can be speedily arrested. The soldiers frequently brought in a man bleeding to death from a sword cut. They were much alarmed, and had little hope; but when they saw the arteries tied, the blood cleansed off, the wound closed, a bandage applied, and the man revived by a stimulant, they were filled with admiration and delight. They well knew that their own surgeons could have done nothing in such a case, and that the man must sink and die.

During the foggy nights, such as prevail in December, the hospital was in great danger. The Imperialists availed themselves of the obscurity to approach to the walls, and the Triads, expecting the attacks, were accustomed to fire round shot from the fort on the north wall which commanded the road to the imperial camp. The hospital was situated on this road, and the shot came whizzing over and about the premises. It was not the most pleasant sound while sitting engaged with a book or a pen, to hear the balls flying about. One evening I was called to a carpenter's house, at the hospital gate, in the road, to see his wife, who had been struck. There was a thick fog, and the Triads, supposing the soldiers would be on the alert, were firing down the road. A ball had entered this man's house; his wife, who was in bed, and sitting up nursing her baby, hearing the ball coming, ducked her head (as people usually do when they hear a shot), and it was

taken off, while the baby was uninjured. Had the poor woman not dropped her head at that moment probably she would have escaped also. On entering the apartment the sight presented was very sad: the young woman was lying back in the bed, but the head lay in shreds around. Her husband was much to be pitied; only a year before he had held a feast on occasion of his marriage, and was now overwhelmed with grief and dismay. The people were in alarm lest other balls should strike the house, which was likely enough—so comforting the man as far as possible, and offering the people quarters in the hospital, which was perhaps a little safer, I judged it best to get out of the line of fire.

In about a fortnight afterwards, on another foggy evening, I was sent for to see a man in the same house. He and his fellow-workmen had been employed in some repairs on my premises during the day, and were sitting talking together after their day's work, when a ball came into the room through the roof, which struck him on the sternum, causing instant death. It was thought at first that the blow having been from a spent ball, the man was only stunned, but on opening his dress the thorax was found completely beaten in. During the examination several balls went by, and the men were advised to leave such dangerous premises. I was not sorry to get safely back to my own house, which, though only a few yards distant, was a little removed from the camp road. The most disagreeable thing on such nights was to have the balls flying about in the darkness; and I often had to make a barricade of mattresses by the side of my bed. In the daytime you

could generally see the gun that was fired, and might ascertain the direction of the shot. Frequently, when operating in the hospital during one of the fights, the balls have gone over the building. Had they fallen short of their mark, which was not an uncommon case, they would have entered the hall.

In this road, there were also other casualties. A soldier had run into a woman's house for shelter; the Triads on the wall seeing this, fired at the house, and the shot so shattered the woman's leg that it had to be amputated. A tailor, who lived in the road, seeing some soldiers go by, ran to bring in a child, when a six-pound shot passed between his knees, destroying both legs. When brought to the hospital, he was advised to have the limbs amputated at once; but his wife would not consent, saying, "How could he work if he had no legs?" She saw no force in the representation, that were he to die he would certainly work no more. As the hæmorrhage was considerable, the operation was urgently pressed; but the friends delayed their consent, till they found the man was dying, when it was too late to do anything for him. In the same road a woman was in bed, with her baby lying on her arm, when a shot took off the baby's head and struck the mother on the shoulder, causing great laceration of the soft parts, and compound fracture of the head of the humerus. She was for a long time in the hospital, but eventually recovered. A shopkeeper, finding the road dangerous, asked a friend to help him in the removal of his goods. While thus engaged, a shot struck the friend on the nates, and made an enormous wound, carrying away the large muscles down to the bones of the pelvis,

so that the trochanter major of the thigh-bone was exposed. After much suffering the wound healed, and the man left the hospital limping, but still able to walk. In the same vicinity two soldiers took refuge during an action behind an upright gravestone. As they sat on the grave, sheltered by the stone, they thought they were safe, but forgot that their knees projected; and a ball passing by carried off their four knees. One man was killed instantly; the other, after losing much blood, was brought to the hospital: both thighs were amputated in the hope of saving life, but the man died in a few hours. He had lost so much blood before admission, that he could not rally after the operation.

Thus passed the last three months of 1853, skirmishing and fighting constantly going on, with many killed and wounded on both sides. Of the Triads who were severely injured, I saw many in various parts of the city, and gave them such attention as was possible. Though these men were little better than pirates, I did what could be done to relieve the wounded. We were allowed to go in and out of the city, which we were anxious to visit, that we might see the Christian converts, who, like other inhabitants, were not allowed to leave. We took in with us a quantity of rice, which we distributed to the poor inhabitants at the dispensary; and held as many of our usual services in the Chinese chapels as was possible. To these services the people of the city came in crowds, every time the chapel was opened. Occasionally fighting would begin between the soldiers and the Triads, when it was deemed best for us to retire speedily.

Hardly anything had been effected towards the capture of the city, after three months' siege. The Triads had erected batteries in various directions, and a fort at the end of the jetty, opposite the little east gate. The Imperialists had a large battery on the other side of the river, and conflicts were of regular occurrence. The imperial camps to the westward of the foreign settlement were strengthened by a large accession of troops, and a fleet of Canton junks had been hired to attack the Triads on the east side or river front. The latter had procured a few junks, which they armed, and had purchased a foreign ship, the "Glenlyon," which lay off the battery at the east gate. She was protected on the inside of her bulwarks by a mud wall; had several guns on her deck, and was supposed to be a powerful battery. The Canton junks immediately upon arrival attacked the city on the east side, while the soldiers opened the assault on the west, or land side. The junks went boldly up the river; two of them, ranging alongside the "Glenlyon," threw fire-pots on to her deck from their crows' nests, and driving her Chinese crew overboard, the men took possession, and sailed off with their prize. The other junks attacked the shore battery, and their men fired a number of houses on the river side, but no impression was made on the city. Nor did the attack on the west produce any result beyond a number of wounded, some of whom were brought to the hospital.

A few days afterwards the fleet sailed up again. The two junks that captured the ship courageously advanced close to the battery, expecting to take it, and running stem on, took the ground close to its guns.

The fight then became severe. The Imperialists poured down fire-pots on the men in the battery, who, in their turn, covered the deck of the junks with the same *matériel*, while the guns on both sides were discharged with the greatest rapidity. First one, and then the other of the junks took fire and blew up, most of the crews being burned to death or shot down. The captains of these vessels were brave men, and did their best, but were too confident from the success of the previous day. The remainder of the fleet, warned by the fate of these two vessels, declined to engage at close quarters, and the crews landing set fire to the eastern suburb to the length of a mile. The conflagration was terrible; a dense cloud of smoke obscured the heavens; the houses of the inhabitants, and the warehouses, which were full of goods, all being destroyed.

During the attack on the river, the soldiers in large numbers attempted to take the Triads in rear and seize the city; but after some hours of desperate fighting at the river front, and on the land side, the Imperialists drew off, being as far as ever from the possession of the city. Their fleet of junks was so much injured that the crews refused to engage the battery again, except at a distance. They contented themselves with blockading the entrance of the river, to cut off the supply of ammunition and food to the Triads.

At the end of December the city was threatened with attack by the French, whose settlement was close to the wall of the city on the east side. On a Sunday afternoon, two native catechists had left the consulate to go to their mission establishment, on the south side of the city. When near the east gate they were seized

by the Triads, on the ground that they were imperial spies. The men denied this, and claimed protection as servants of the French bishop, and known to the French Consul; but the Triads beat and tortured them, and kept them in captivity. The bishop heard of this the next day, and sent a priest to demand their release, which was not granted until after an appeal to the Consul was threatened. This officer considering the proceeding altogether an insult to the French flag, intimated to the chief of the Triads that unless he sent the officer who had injured the catechists to him to be punished, he should refer the matter to the commander of the French ship of war in the port, who had already determined to cannonade the city. This threat threw the Triads into great consternation. They agreed, when the affair was explained to them, to yield to the Consul's demand. The officer was sent to make his submission, and a full apology, which he did, and humbly sued for pardon. The Consul, having gained his point, forgave the offender, but warned the chief against the recurrence of the offence.

One evening in November, a body of about 300 Imperialists made an attack upon the guards, who had been posted at different points of entry to the foreign settlement. The guards, consisting of sailors and marines, who had been landed for the purpose of protection, while so much fighting was going forward, turned out, and fired on the Imperialists to drive them from the settlement. These, however, rushed upon the guards, and the noise arousing the settlement, several members of the community armed themselves, and helped the guards to expel the intruders. Several soldiers were

killed in the engagement, and upon them were found fire-pots and fire-bags. It appeared that the general of the Imperialists accused one or two foreigners of selling guns to the Triads, and had sent this force to search their premises, and seize any guns they might find. The fire-bags which they had brought with them, revealed their true intention to burn the houses. The British Consul thereupon notified to the general that such conduct would not be tolerated; that armed soldiers were not to enter the settlement; if they attempted to do so, they would be shot; and that, if at any time he had complaints to bring against foreigners, they would be heard and attended to at the consulate.

It was supposed for some time that the Triads, notwithstanding their being idolaters, were in some way connected with the army engaged in the Tai-ping rebellion. The novel occurrence was seen on one occasion in the city, of the carrying out a large quantity of idols, which were taken away in baskets, and either burned or thrown aside. The Triad officers said they wanted to be Christians; their professions could not be believed, however, while their lives and actions were at open variance with Christianity; they revelled in scenes of rapine, murder, and lust, and every vice that degrades humanity. Though they sought an alliance with Tai-ping-wang, the head of the Nanking rebels, sending messages to him entreating his favour, and reported the advance of his troops to their assistance, and to garrison the city, there was never any connection between them; the Tai-pings refused to assist or to associate with them at all.

While the city was in possession of these men, there

was a prolonged discussion between the foreign merchants and their Consuls, as to the payment of duties to the imperial government. It was contended, on the one hand, that as the government gave no protection, its right to the duties had lapsed; to which, on the other hand, it was properly replied, that the treaty was still in force; and though, owing to peculiar circumstances, the government was under temporary difficulties, the obligation upon foreigners to pay the usual duties was in nowise absolved. For some time after the capture of the city by the Triads, while the custom-house was abolished, the Consuls had taken promissory notes from the merchants for the payment of the duties. Afterwards, when the custom-house was re-established, and the Chinese officials proceeded to collect the usual payments on goods, the Consuls assented, and required their countrymen to accede to the levying of the duties; which were also paid. The Chinese officials then demanded the payment of the bonds for the back duties, incurred before the re-establishment of the custom-house. This demand gave rise to long discussions between the Consuls and the Chinese government, and between the merchants, Consuls, and foreign governments; and it was ultimately found, after many representations and much contention, that the requirement of the bonds was not strictly legal, and that the demand could not be sustained. The back duties were therefore not paid to the Chinese. This demand was the source of discussion for many months; reasons for payment, and reasons for non-payment, being enforced by both parties, the matter ending in the Chinese government being much disgusted at not receiving the money,

to which, however, as they had had no custom-house of any description, they had probably no legal claim.

A fearful tragedy occurred in the city early in 1854. A number of Canton men from the district of Kia-ying-chau had determined to go over to the Imperialists and give them possession of the place. The Triads discovered the plot but allowed it to proceed. The appointed signal was the burning of a certain house in the city, upon which the Imperialists were to begin their attack, and the east gate was to be opened to them. The Triads watched for the signal, and no sooner was the house fired than they surrounded the traitors, and in the course of that and the following day caught two hundred of them in various parts of the city. At the first onset they seized thirteen men, whom they instantly bound and cast into the burning house, in the ruins of which their corpses were afterwards seen. The remainder were beheaded in front of the Confucian temple, in which the Triad chief resided. The large square enclosure, where the men had been placed in rows for the execution, was covered with blood when I saw the spot shortly afterwards. With the exception of a few who had escaped over the walls during the night, all the conspirators came to this bloody end.

Towards the end of January, as I was engaged in the hospital attending to some wounded soldiers, hearing a gun and the sound of a ball striking the ground close at hand, I went into the road to see if the Imperialists were there, and engaged in an attack on the city. There were no soldiers in sight, but another ball came, followed presently by a third,

and then another, which struck the ground close by. Concluding the hospital to be the object which was fired at, I hastened to the bastion where the gun was placed, and called out to the gunner to know what he was about, as the shots were falling around the hospital, and I would not permit him to fire at my premises. He said that soldiers were coming along the road, which I was able to deny. I charged him with deliberately firing at my house, and insisted that he should cease his amusement, telling him that a complaint to his chief would bring him into trouble. The man laughed, and said he "did not wish to do me any harm, but as I disliked it he would not fire any more."

While standing under the wall the absurdity of the affair struck me very forcibly. I, standing outside, scolding the man on the bastion, he, match in hand, firing his gun at my house, and turning the whole thing into a joke, saying "he did not wish to hurt me!" Not being over-confident in his promise, I proceeded to the city to the office of the chief, and objected to my house being made a target for the skill of their men. The officer repeated the gunner's excuse that soldiers were on the road, but I assured him such was not the case, as I had not found any soldiers in the neighbourhood. "Well, they are firing at the hospital because soldiers are there; you ought not to care for wounded Imperialists." — "But you are aware that all are alike to me, I attend to those who are wounded. Your own people are taken into the hospital, and you know that many of your wounded have been looked after in the city as well." Again he was informed that although during the fighting I would take my chance of the

balls, my house should not be fired at for amusement's sake. And, as he had admitted that the hospital had been deliberately made a mark for their gunners, I said I would bring the matter before the British Consul, when they might find it too serious a game to be repeated. As he laughed at this, and jeeringly asked, "what will the Consul do?" evidently disposed to be mischievous, I demanded that he should at once send to the gunner to forbid the firing at the hospital. With this the interview closed, and I proceeded to the consulate to state what had occurred and make a formal complaint. Mr. Alcock, her Britannic Majesty's Consul, regarding the matter as requiring prompt measures, secured the co-operation of the naval commander at the port. This he readily granted, and landing some of his marines, they accompanied the interpreter, with a letter to the Triad chief, recounting the transaction, and telling him that if by accident or design the hospital should be struck again they would blow up the north gate of the city, and take such other steps as might be necessary. After this the firing at the hospital and the amusement ceased together. Though during the entire siege the risk was great of being caught by a shot, I was never again fired at designedly, and in the thickest of the danger, when the fights raged hotly in the neighbourhood, no one in the mission enclosure was struck by a ball.

One day, proceeding with a servant down the mission compound, as he walked in advance an iron shot passed between us, and entering a house, shattered to splinters a chair from which a friend had just risen. On another

occasion, a one-pound ball fell amongst a party of children who were playing on a grass plot, without hurting any of them. One of the children picked up the ball, and took it for a new plaything.

Gunpowder was now getting scarce in the city, and the Triads set up a powder mill in one of the temples. The Chinese do not use sublimed sulphur, but are content to grind the rough material, which is not easily pulverised. The powder turned out of this manufactory was coarse and not very effective, but it answered the purpose for the time.

In February the Imperialists sprung a mine early one morning under the north-west corner of the city, which destroyed several yards of the wall, and made a clean breach. By some mismanagement the soldiers were not at their advanced posts, but only on their way from the camp when the mine exploded. The Triads, seeing their advantage, rushed from the city through the breach, and attacking the soldiers as they hurried up to the wall, broke their ranks. A fierce contest ensued which lasted for some hours, with great loss on both sides. The Imperialists suffered most, and were compelled to retire; and the Triads following up their success, attacked the fort whence the mine had been dug, and after driving out the soldiers, took their arms and ammunition, and returned to the city.

Thus the siege proceeded, month after month, amid scenes of confusion and blood, with now and then incidents of mock-bravery and ludicrous fear. Frequently in the course of a fight soldiers would run forward to a mound near the wall, fire their matchlocks in the air, and having made sufficient noise and used up all their

powder, would return to their comrades at a safe distance.

A soldier was seen one day chasing a Triad round the embankment of a grave. The one had a matchlock and the other a sword. The soldier chased the Triad for some time and at last ran up and over the embankment to fire at him. In depressing his piece, however, the ball (which is put in loose without wadding) fell out. The soldier being now helpless, the Triad in turn gave him chase, but trying to strike with his sword, slipped and fell. The soldier ran off.

Fighting was carried on at the south side of the city, while these conflicts proceeded at the north. The Imperialists had established themselves in houses near the wall on that side, and erected batteries, which were taken and retaken many times, to the great loss of both parties. It was here that the imperial officer and his men were killed by the explosion of one of their own mines, as detailed in another place.*

In the afternoon of April 3rd, an alarm was raised that the Imperialists had attacked several foreigners. For some time the soldiers had been troublesome, and complaints made of their firing at persons who passed near their camps. This time, three or four separate parties had assaulted foreigners on the outskirts of the settlement, in one instance striking at a lady with a sword. The lady was not wounded, but the gentleman with her received several sword cuts. They attempted to seize others, and attacked one of the foreign houses. Immediate measures of defence were necessary. Men

* Page 360.

were landed from the ships of war; the volunteers, organised for some time previously from amongst the foreign residents, turned out, and the soldiers were driven from the settlement. One of their camps was set on fire, and into another several shells were thrown. Guards were posted for the night on the boundary of the settlement.

The consuls of the three Treaty Powers complained to the general of the Imperial troops of the outrage that had been committed, and required the camps to be removed farther from the settlement, that future collision might be avoided. To this communication the general returned an evasive reply, and declined to change the position of the camps. The next day, finding that nothing had been done for the withdrawal of the troops up to four o'clock in the afternoon, which was the limit of the time allowed for decision, the consuls referred the affair to the English and American naval commanders. Men and guns were landed, and the volunteers joining, the camp nearest to the settlement was attacked. After a two hours' engagement, the Imperialists who lost many of their men, retired, and their camp was destroyed. Of the English and Americans engaged, two were killed, and fifteen wounded; two of the volunteers died from their wounds. One of the volunteers, an American, Mr. G. G. Grey, received a gun shot wound through his knees, which necessitated the amputation of one thigh the same evening.

After this conclusion of the difficulty which was occasioned, in the first place, by the bad conduct of the soldiers, the settlement was exposed to no further molestation. The foreigners lived in perfect harmony with

the troops for the remainder of their stay in the locality. Had not prompt and effective measures been taken, however, there is no doubt the settlement would have been attacked, and great mischief have resulted. The thanks of the community were accorded to the consuls and the naval commanders for their energetic action for the defence of the settlement, in the face of an enemy more than ten times the number of the defenders.

A few days subsequently to this affair, the Triads attacked and burned a large camp of the Imperialists, which had recently been formed to the westward of the city, and on the same evening were repulsed in a sortie and nearly cut off. They only saved themselves by taking to their heels, and retreating within the walls.

On returning from the city one afternoon in the company of the late Dr. Medhurst, after one of the usual visits to the native converts, we noticed that an imperialist battery was firing shot across the river into the suburbs. Soon after reaching home, a woman was brought to the hospital who had been struck in the leg by one of the balls. The limb was dreadfully mangled, and she was told it must be amputated. She declined to have this done; her friends would not allow her to remain. She died shortly after. While attending to this poor woman, an imperialist soldier was carried in with his arm shattered. He was a gunner at the battery just mentioned, and had discharged his gun only twice; the first time the shot struck the woman, the second time the gun itself burst and he lost his arm; the two wounded persons meeting at the hospital within a few minutes of the accidents. The soldier's arm was amputated, and he was soon discharged.

At one period the Triads would go out in small parties and kidnap any soldiers they found loitering astray from their camps. These were taken into the city, and immediately beheaded, or cruelly tortured till they died. One day, some Chinese came to the Mission lamenting that a relative of theirs, a shopkeeper, had been seized, and carried into the city. They begged us to go and save his life. We found, on proceeding to the city, that the man was condemned to be killed; we stated the facts of the case, assuring the Triad officer that the capture was a mistake, as the man was not a soldier, and begged for his life. The request was granted, and the man left the city with us, greatly delighted that his head was on his shoulders. After we had reached home his friends came, as we thought to express their thanks. Not so; they were disappointed that we had not also saved a new jacket which their friend had been wearing, and begged that we would go back and reclaim it! Instead of this we upbraided them with their want of proper feeling in the matter.

We were often thus successful in obtaining the release of people who had been seized, but at times were not so fortunate. On asking for a man, one day, the officer produced his list, on looking over which I saw opposite the man's name a red circle, the Chinese *full stop*. I inquired the meaning of the mark, and the officer said, "Why, he has just been beheaded; I am very sorry, but it is too late, or I would have released him."

We found that the leaders of the gangs of kidnappers were foreigners, who had deserted from English or American ships, and been tempted by the high wages given them by the Triads. They had a reward for

every soldier they seized, and were enraged at us for interfering in the rescue above mentioned, threatening to shoot us if we came again. Not caring to cause a disturbance we left the spot, knowing that the threat would not be executed.

Amongst the incidents that occurred in the city at this time was the following:—A young Chinese, educated at Singapore, said to speak English well, and to have held several lucrative posts, had for some months been acting as secretary to the Taou-tae-Woo (Sam-qua). He told several persons that he had refused to act longer in this capacity. He now offered his services to the Triads for a good payment. They accepted his offer, but for some reason suspected that he was acting the part of a spy, and while treating him with all seeming confidence and respect, had him narrowly watched. He was detected one evening writing a letter to his former master, with an account of what was doing in the city. He was thereupon seized, and subjected to most cruel torture; made to kneel on chains, while a red hot iron rice-boiler was put on his head; other cruelties were then practised on the unfortunate youth, and he was at length slowly cut to pieces. Being a native of Singapore, he was a British subject, and his friends besought the Consul to demand his body from the executioners. The Consul very properly said the young man entered the city as a Chinese, and not as a British subject; was clearly a spy; and that he should not, therefore, make any demand. The Consul did ask if the body could be given up, but the Triads made excuses—they could not find his body, and did not send it; the fact being, the body was so mutilated they

did not wish it to be seen. Such were the practices of both parties towards spies; the worst cruelties of all were inflicted by the Imperialists.

In their treatment of the common people also, these were by far the more oppressive, cruel, and licentious. The soldiers would go into the villages, break open the houses, and after plundering set them on fire. They would beat, and if they resisted, often kill the men, and afterwards abuse the women most foully; abusing them sometimes until they died. At times a small body of soldiers would visit a secluded hamlet for the purpose of pillage, and the men of the place aware of their intentions, would overpower and kill them all; then a larger body of soldiers would go and burn the place. These things were of daily occurrence, until the country around Shanghai was desolated. All the large trees within a circuit of several miles were cut down for firewood by the troops; and the country, instead of presenting its usual fertile and flourishing aspect, was wretched and impoverished in the extreme. The soldiers were not permitted to leave the camps in large numbers at one time; and a handful of them dared not go far from the camp, or into any of the large villages, for they were so hated by the people that they would have been attacked forthwith, and driven away, most probably with loss of life.

In September, 1854, the foreign residents at Shanghai, presented to Captain O'Callaghan a piece of plate, with thanks for his energetic efforts for the protection of the settlement during the troubles caused by the Imperialists in April.

The French frigate, "Jeanne D'Arc," with Admiral

Laguerre on board, arrived in the course of the same month. In ascending the Yang-tsze-kiang, owing to the unskilfulness of the pilot, she grounded on the bank, and was so much injured that her guns and stores had to be removed, and the ship laid up in the graving dock, and repaired at a heavy expense.

Up to this time the Triads had been allowed to pass unmolested through the French part of the settlement, a guard of French marines having been placed near the consulate to prevent their passing with arms. The Imperialists, who had been hindered from carrying on their skirmishes in the English or French settlements, pressed their request to Admiral Laguerre that the Triads should not be permitted to enter the settlement and thus obtain provisions. The Admiral granted their request, and allowed them to build a strong wall from the river, through the French settlement, towards the north gate. French marines protected the workmen, and the wall was eventually carried across the fields and a cemetery, to the bank of the creek, and then in a westerly direction. The Triads were now shut off from communication with the settlement; the only entrance through the wall being a gate near the river, kept by a French guard, who allowed no person from the city to pass without leave from the officer. The Imperialists at the same time investing more closely the western and southern sides, provisions grew scarce in the city, and but that the soldiers were bribed by the country people to allow them to sell their articles under the wall as before, the people inside would have starved.

Early in December, there were many severe conflicts between the contending parties; the Triads in vain en-

deavouring to break through the imperialist camps. They succeeded in firing one of the camps, doing much damage, and capturing some guns, but were obliged to retire to the city. In these contests many were killed on both sides. On the 9th of the month a brief engagement took place between the French and the defenders of the city. These latter had commenced building a mud fort on the border of the French settlement. When ordered to remove the erection, they not only refused, but fired on the marines who had been sent with the men to demolish the fort, and wounded two of them. The fire was returned, killing several of the rebels, and later in the day the Admiral cannonaded the city, and destroyed some portion of the defenders' works on the wall. He declared the city, a few days afterwards, in a state of siege, commanding the Triads to surrender it to him, and submit themselves to his mercy. On their refusal to accede to these terms, the Admiral threatened to use force, and at daylight one morning a force proceeded in boats from the "Jeanne D'Arc" and "Colbert," attacked the Triad battery at the east gate, and having captured it, driven out the garrison, and spiked the guns, returned to their ships.

One night, during these proceedings, between the French and the holders of the city, hearing there was to be another attack on the following morning, I sought permission of the Admiral to pass his guards, that I might go into the city, unofficially, and endeavour to induce the Triads to submit to his demand. He warned me of the probable danger of the expedition, but assuring him that I was not afraid of the Chinese, but only of the possibility of his men firing upon me in going or

returning, or lest the attack should begin before I could leave the city; he courteously gave me leave until a certain hour, about five o'clock in the morning. I promised to report to him by that time the result of my mission. This was at eleven o'clock at night; after arranging at home for my absence, I passed, along with Mr. Wylie of the London Mission, who, hearing of the intention, volunteered to join me, through the outposts of the French guard. Asking at the wall for leave to go to the east gate, we proceeded thither, having to push through the embrasure of an extemporised fort on the way. The Triads at the gate were much amazed to see us, and took us for spies. I asked to see one of the chiefs, and desired a man to go with us, that we might not be molested. At the quarters of the chief a council was being held, although it was now two o'clock in the morning. A message was sent in that I had urgent business to speak of, and two or three of the leaders made their appearance. I then told them my errand; that, acting on my own responsibility, without any official message or authority, I ventured to represent to them the state of affairs between them and the French admiral; that they could not hope to withstand the force that would be brought against them, and knowing their provisions would not last much longer, when they must soon be starved out, I would strongly advise them to yield to the admiral's demand. They listened to my representations, and retired for some time for consultation. At length, returning, they said they had resolved to fight it out. They were numerous and strong, and though the French might do them much damage, and kill their men, yet to give up the city

would be destruction to them all, therefore they would not submit; if the French did attack them, they might perhaps not succeed in driving them out of the city. I tried to convince them that sooner or later they would be vanquished, when they would get no terms at all; whereas, now, an arrangement might be made for their lives, and the lives of their followers. "No," said they, "we will stand or fall together." After expostulating with them in vain for two or three hours I left them, and returning to the settlement reported the interview to the admiral.

The attack did not take place that day, and all was quiet until January 6th, 1855. At daylight, the French breached the city wall from a small battery, and as soon as the breach was practicable, a force consisting of 250 marines and seamen ascended the wall, having with them a couple of howitzers, one of which, however, was at once disabled by an accident to its carriage. The Triads had concealed themselves in a pawnbroker's large warehouse, the walls and tiled roof of which they had loop-holed, and here they made a stout resistance, killing two of the French officers and several men, and wounding others. Still, the French made good their position, besides taking the north gate; but the success of their attack was seriously hindered by the Imperialists, who, contrary to the express orders of the admiral, crowded in at the breach in great numbers.

During the attack on the wall, the French ships threw shot and shell into the city; but notwithstanding an entrance had been effected, the Triads made so energetic a resistance that the admiral, leaving the city in their possession, withdrew his men. Out of two hun-

dred and fifty who had been engaged, no fewer than two officers were killed and four wounded, of whom two died from their wounds. Of the privates, there were thirteen killed, and thirty-three wounded.

The result was quite unlooked for. The French acted with their accustomed bravery, but the Triads were numerous, and fought with desperation. They had amongst them several deserters from foreign ships; and being sheltered by the warehouse, which was near the breach, they picked off through the loopholes the French force, as it mounted the city wall. The Imperialists, when they were in the city, thought everything was in their hands; but by their crowding on the wall, and blocking up the way, they effectually prevented all successful action. No sooner had the French retired, than these Imperialists, already intent on plunder, and recklessly wandering about the city, were attacked by the Triads; and before they could escape from the city, sixty of them were seized and shut up in a large temple. When all the stragglers were thus imprisoned, a large quantity of wood, the remains of broken-down houses, was thrown into the temple, and the building and prisoners were burned together, in revenge for the day's attack on the city. It was a fearful burning.

Besides this capture, the loss of the Imperialists was heavy. Their flight from the walls was so precipitate, that many were killed in the confusion, the Triads shooting down great numbers. Of those who entered the city that morning, it was said that as many as four hundred were slain. After rushing into the city, they not only decapitated those who had been killed in the

engagement with the French, but attacked the unfortunate inhabitants, cutting off their heads, and in some cases their ears, as trophies of valour. A soldier, brought to the hospital with a gun-shot wound in his head, had his wallet filled with ears, and a portion of a scalp with the bone attached, which had been chopped from a man's head. After the day's work, however, in which they suffered severely, the Imperialists fled to their camp, sorely discomfited.

At this period Mr. Alcock, the British Consul, issued a notification stating the wish of the Imperialist officers to carry forward the wall before mentioned, between the English settlement and the city, to the westward, near the camp. All communication would thus be shut off between the city and the foreign settlements; and foreigners were forbidden to interfere with the intended operations. The Imperialists were also allowed to erect a battery at the end of the road, near the hospital; in which they placed two enormous iron guns. These guns were of great weight; and the mode of their transport was somewhat curious. As the roads were too narrow to admit their passage, they had to be dragged across the country. The ditches were bridged by beams of timber, which were carried from place to place along the route; large quantities of flattened bamboos, smeared with oil or grease, were laid on the ground in front of the gun, to which long ropes were attached; then the soldiers and others who had been impressed for the service, with a good tug, dragged the gun over. It was surprising with what rapidity the gun was brought to its destination, even by such clumsy means. When it had reached the battery,

beams of wood were lashed to it, and across these several poles. Then, by main strength, a crowd of men lifted the gun on to its carriage and into position.

The siege of the city was now very close. The Triads made sorties in vain to break through the Imperialist lines, but succeeded in disabling and carrying off for slaughter not a few, both of officers and men.

This battery was finished about the middle of January, and was at once made the central point of the Imperialist fire. Being near the hospital, as the Triads moved their guns so as to command the position, their shot soon became very annoying. On one occasion, shortly after morning prayer in the hall, some fifty or sixty persons present were just leaving the apartment, when a six-pound shot came through the roof, and passing over their heads, went through the partitions, across the yard, and buried itself in some firewood in the kitchen, whither the people from the hall were going to cook their breakfast. Though this site had been granted for their battery, the Imperialists were not allowed to approach nearer to the foreign settlement; yet, with their usual obstinacy, they persisted in occupying forbidden positions; and this, notwithstanding they were fired upon by our guards, who had orders not to allow approach to our lines. They would come in front of the hospital premises, and showing their flags, draw the fire of the Triads towards the settlement. This was supposed to be done for the purpose of exasperating the foreigners against the defenders of the city; the consequence was, that shot were always flying about. Frequently iron shot would fall in the

field close in front, sending up a column of earth and sand, but happily not reaching the hospital.

Towards the end of January 1855, the Imperialists expelled the inhabitants from the houses along the road alluded to already, near the hospital, and then set the houses on fire. They would have been pleased to do the like by my premises, at which they cast wistful glances as they prowled around; but outside they had all their own way, and plundered and burned as they chose. The poor people who were thus made homeless gathered round the gates of the hospital. About two hundred of them found refuge within, with what portions of property they had saved. They were made as comfortable as possible in the hall, many of the foreigners offering assistance to the poor people, carrying in their goods, and some of them having a large quantity of food cooked in their houses and prepared for this numerous family, so many more than could be provided for in the hospital kitchen. This supply was kindly maintained as long as the people remained on the premises. They gradually went away to their friends, or found accommodation in the neighbouring villages.

The day after this occurrence a brass shell, thrown by the Triads (a deserter from the marines on board an English ship of war had taught them the manufacture, though very imperfectly), came smashing through the roof of the hospital, and bursting, fell among a crowd of people in the hall. It tore up the floors, shattered the furniture, and flew in all directions; but to our surprise no one was hurt. The part of the floor which was laid open had been occupied by an old woman just brought in with a broken leg.

She had been removed and put to bed in another place, and hardly had this been done when down came the shell. This was the last shot that struck the hospital, though shells might frequently be seen afterwards bursting in the air a few yards in front of the place. The gun in the bastion that had formerly caused such annoyance was now replaced by a larger one, which, happily for me, was directed towards the French settlement. The French admiral caused a howitzer to play upon it, and one morning at daylight I had the satisfaction of seeing shell reaching the bastion. The first knocked the gun over, and the remainder demolished the bastion entirely, to my unqualified gratification, for I was never safe when that gun was being fired.

Up to the middle of January, through the courtesy of Admiral Laguerre, who granted me a pass for the purpose, I could enter the city through the gate in the French wall, and was thus able to attend to the wounded citizens, and visit the Mission chapels, supplying those in charge with provisions and money. At this time, the siege being now much more strict, the admiral requested me not to use the pass any longer, and I did not enter the city again while the siege lasted.

As February drew on, there were occasional fights between the contending parties; but though the Triads suffered the least in these, it was known that there was a growing scarcity of food within the walls, and that many had died of starvation. Ammunition also had run so short that it was now most carefully used. It was concluded from these circumstances that the siege

would soon end, especially as the French on the one side, and the Imperialists on the other, would easily wear out the endurance of the Triads. But for the action of the French admiral, it is certain that the Imperialists would not have taken the place; they, however, said, had it not been for the liberty which the Triads had enjoyed of access to the settlement, they could not have held out so long as they had. This was proved by their present distress since that leave had been withheld.

By the middle of February it was known that the Triads were in great straits. They had very little food, and were quarrelling amongst themselves, and in their quarrels killing each other. There was much firing heard in the city at this time. The division of feeling amongst the Triads approached to its climax; one party was for surrender; another for fighting out the quarrel; while a third party counselled flight. Many of them dropped over the city wall and surrendered to the French, who received them kindly and gave them food. Afterwards they were handed over to the Chinese officers, but on the pledge that their lives should be spared. Pardon was then offered by the French to as many as should surrender without delay; and great numbers of Triads and citizens deserted the city. It was shortly known, however, that nearly all these were at once put to death by the Chinese, greatly to the indignation of the admiral. But this conduct of the officers was in character. They will promise, but are not to be trusted, as with them a lie is of no moment; they will affirm, or deny, or promise, as it may suit their present purpose; and there is little doubt

that in this instance they used the French in the way of decoy, to get people out of the city into their own hands.

Considerable anxiety was felt lest at the breaking up of the siege the beleaguered party should make a rush across the foreign settlement towards the open country, or towards Wu-sung, where they could take passage by native junks to the sea-board. In either case the Imperialists would give chase, and we should certainly be involved in the conflict. The guards were strengthened at all points, and every precaution taken to keep the combatants outside of neutral territory. To this plan was owing the safety of the premises in the foreign settlement; and much of the credit is due to Mr. Alcock, H.B.M. Consul, for his wise suggestions to the naval commanders, and his own forethought and energetic action.

In addition to the French and the English guards about the settlements, an important post was occupied by a guard which was sent on shore to aid in their protection, by Captain Pope, of the United States sloop "Vandalia." As this guard was at the point nearest to the camps, peculiar vigilance was required, lest the Imperialists, by coming too near, should draw upon it the fire of the city. On more than one occasion, indeed, this guard had by force to beat off both Triads and Imperialists, who were about to fight round the guard-house, and at one time, were about to discharge the field-piece before the soldiers would retire from a road too near at hand.

The night of the 17th and 18th February, 1855, will long be remembered by me as a night of surprise,

and astonishment. It was the night of the Chinese new year's day. There had been no fighting in the city, and it was known that the Triads were reduced to extremity, and must shortly quit the place, if not previously destroyed by the Imperialists. Their quarrels amongst themselves had increased in vehemency; united action was wholly at an end; and how to terminate the siege seemed to be all that remained to be settled.

This day had been remarkably quiet; no one had been seen on the wall; there had been an entire absence of desultory firing, and the unusual general silence seemed ominous. The Chinese concluded that the Triads, in extremity, were about to evacuate the city. At about eleven o'clock, when retiring for the night, hearing a dull, heavy sound from that direction, I went to the verandah, which commanded a good view of the city, but saw nothing to explain the noise, which was not repeated. Afterwards I learned that the sound was caused by the explosion of an Imperialist mine under the wall, near the south gate. On going to the verandah about half an hour later, I discerned a light at a great distance, evidently on the south side of the city. This light gradually expanded, and was accompanied by an explosion. Presently another light appeared, followed by a third—the first light burning in the centre, and explosions following at certain intervals. Similar lights sprung up by degrees all round the walls, until their entire circuit was illuminated. The sight was so extraordinary that I at first thought myself in a dream.

The lights were the burning tents (made of canvas and mats) of the Triad outposts, which had been set on fire by the soldiers. Meeting with no resistance on the

south side, they had climbed up and fired the tents as they passed along the wall. They killed some of the guards whom they found in their tents, either drunk or asleep, and left their bodies in the fire: the explosions resulted from the jar or horn of powder kept in each tent. As the fires travelled to the wall nearest to the hospital, the soldiers at the battery in front began to discharge their big guns and volleys of musketry (or matchlockery), beating their gongs with a great uproar.

It now became evident that the Triads were leaving the city without any fighting, as there was profound silence in that quarter. From the top of the house this ring of flame was seen all round the city, the more distant fires beginning to die away. Suddenly other fires burst out in various parts, then others flamed up, until on all sides there were thirty or forty fires burning furiously. I then went down to the American guard-house, to ask what was doing in the city, and found there a number of Triads who had fled to it for refuge. They had dropped from the walls, and after wading the creek, had climbed over into the settlement, and begged for shelter. It appeared on inquiry, that the chief and his officers had been disputing early in the day as to the course to be taken, but not being able to agree had broken up in anger, and fled as they best could. Some of them had escaped in the afternoon, and others as the dark evening had set in. Their followers, finding themselves deserted in this dastardly manner, after all the assurances from their leaders that they would remain together, and conquer or die, then took to flight. Many went to the French guard, others to the American guard. Many more

scattered themselves over the settlement, begging for shelter, and others fled into the open country.

In this condition of affairs the Imperialists entered the city, setting it on fire, and killing all the Triads they found there. It was afterwards learned that the Triads, as they escaped, commenced the conflagration, setting many of the streets in a blaze as they passed through them: so that both parties were concerned in the burning of the city. A French guard, to whom I applied for information, said that several Triads had surrendered at the gate; but he knew nothing more than that there were large fires in the city.

It was now two o'clock in the morning. The fires had spread in all directions, and many more had broken out, apparently uniting from all parts of the city. On every side poured forth a mighty cloud of smoke, with a body of flame wonderful to behold, which illuminated the whole heavens. I had seen very large conflagrations in China, as well as in England, but never any to be compared to this. The flames were still increasing, especially in an easterly direction, when it was evident that the large, respectable houses and shops on that side of the city, where the chief business was done, were on fire. The roar of the flames was now distinctly audible; a light breeze had sprung up which fanned the blaze; hour after hour the flames increased, and an extraordinary spectacle, such as I can never forget, was the sight of that burning city.

As the morning broke, the soldiers were seen making their way over the walls, many of them returning to the camp, laden with plunder. At the earliest moment, towards noon, I went in through the breach made by

the French the month before, to learn the safety of our mission chapels. One of them, and its keeper, was safe; the only damage was the loss of a few articles of trifling value, which a soldier had stolen. The other chapel also was safe. In front of this one lay the headless trunk of a Triad, who had sought refuge in the building. He was observed by a soldier, who dragged him out, and at once beheaded him.

The fire was still raging. Many streets had been entirely consumed, and the flames were keeping on their fierce march through the houses; intercourse was cut off between different parts of the city, and caution was needed lest the passer-by should be hemmed in amongst the numerous fires. One third of the city had by this time been destroyed, and of the better class of shops and houses of business almost all were burned down, or in process of destruction.

It was feared that on getting possession of the city, after a protracted siege of eighteen months, the soldiers would revenge themselves upon the inhabitants in acts of cruelty and indiscriminate slaughter. I looked about into the houses and the public places for evidences of this, but found none. In passing through all the accessible streets, I did not meet with a citizen who had been even wounded by the soldiers since the flight of the Triads. Of these latter there were many dead bodies and headless trunks lying about; a circumstance not to be wondered at, as the rule in China is to take no prisoners, but to kill your enemy. This surprising absence of injury by the soldiers to the people, was partly owing to the orders of their officers, and of the French admiral, who had insisted that the unfortunate

citizens, who were not to blame because the rebels had held the place, should not be molested. It speaks well, however, for the discipline of a Chinese army, as well of officers as of men, that such orders were, as far as appeared, so implicitly obeyed. As for the Triads, they were beyond the pale of protection; they had lost their game, and must pay the penalty. No one pitied them; while the forbearance of the soldiers towards the inhabitants of the city could not probably have been surpassed by European troops under the like circumstances.

They roamed through the place, however, in search of the Triads, whom when they found they instantly put to death. They were discovered secreted in every out-of-the-way place: in coffins, in old graves, and other unlikely holes and corners. In one house they discovered a woman, well known to have been a Triad officer. She had had a company under her command, which she had often led to the attack, and had herself fought vigorously. The daughter of a man who had early joined the Triads, but falling into the hands of the Imperialists, had suffered a cruel and lingering death,—she vowed vengeance against them, in honour of her father's memory. She was the bravest leader the Triads possessed, and a perfect fury in battle. Expecting that, being a woman, she would be overlooked, or not recognised, she did not, or perhaps could not, flee. She was found hiding under a bed, and dragged forth to instant execution.

Supplies of food were at once carried to the people, who, in their half-starved condition, yet rejoiced in their liberty. Crowds flocked in, seeking for relatives and friends; and the scenes of joy and sorrow, as these were

found alive or otherwise, were touching to behold. When I left the city, wearied with excitement and fatigue, and after helping to the utmost those of the people in whom we were interested, the fires were still burning, new fires occasionally bursting forth from the smouldering ruins; but the fury of the conflagration was abated.

Such of the Triads as had escaped were dispersed in all directions. The chief was said to have got away with some of his immediate followers, but to have been taken by the Imperialists and put to death. This was probably correct; though, being a man of wealth, he had many Chinese friends in the settlement, who could have screened him. Others of the officers succeeded in passing the Imperialist lines. One, who had been the principal military commander, disguised as a coolie, returned to the settlement, and got on board a foreign ship. After spending his money at Singapore, he at last became a pirate in Siam. Those who were caught were beheaded by the soldiers. The men were seized in all parts of the country, and taken to the camp. They were beheaded in an adjacent field, which soon became an Aceldama, saturated with blood, and covered over with heaps of human heads, which were afterwards taken to the city in basketfuls, and fixed on poles around the walls. The number thus slain was variously stated. It probably reached as many as two thousand. A few, more fortunate, were secreted by native friends in the settlement, and afterwards went to sea. Eight or ten came to the London Mission, and implored refuge. They were kept for a day or two in the hospital, and then allowed to go by night to a vessel about to sail, by which they escaped. Though the conduct of these

men had been sufficiently bad, we were unwilling to give them up to certain death.

The Imperialists, after moving many of their men into the city, broke up the camps, and sent away the greater part of the force. The inhabitants returned in great numbers; and when the fires had all died out, the desolation of the city was seen to be very great. The best streets were in ruins; and the business places and houses where the Triads had lived, destroyed. As soon as the people had settled, the work of renovation began: the streets were cleared of rubbish; boundaries of property were marked out by the owners; and hundreds of coolies carried away the débris from the city. In a few days the whole place was full of life and activity: building materials in vast quantities were brought in; houses began to rise; shops of all kinds were opened with goods from Soo-chow, and other cities; and a thriving trade soon returned. The Chinese junks from the mouth of the river took up their former anchorage; and in a very few months whole streets had been built, and the business of the city flourished as before. Lookers-on were astonished to see how quickly the people established themselves in their old quarters. Money was lent in large sums to the traders and shopkeepers, by wealthy men; and it is surely a testimony to the integrity of the Chinese character, that when people had been utterly ruined, as most of these tradespeople were, others would come forward and cordially enable them to reinstate their business. For these advances large interest was paid, and the principal liquidated gradually as trade prospered.

Some wealthy men of the city were called upon to

pay large sums to the local government. One, in particular, who had been kept a prisoner at large in his own house by the Triads, had been, it was said, already fleeced by them to the amount of 300,000 dollars. When the Imperialists retook the place, the general informed him that, as he had paid so handsomely to the Triads, he must now redeem himself by paying 200,000 dollars to the government. We had asked this man, while the city was occupied by the Triads, why he did not try to escape. He said, it would be of no use; he could get away, but his family could not; he might be killed or ruined if he stayed, but his family would be killed if he escaped; so he was resolved to take his chance. He and the other rich men of the place had, at their own expense, to rebuild the public offices, according to plans which were sent to them, and to repair and put in good order the wall, gates, guard-houses, and other defences of the city.

Gradually Shanghai regained its usual appearance. The astonishing elasticity of trade was seen, after its almost total destruction, in its unprecedented revival in the city, which had been the scene of so much misery and loss to the inhabitants, during the eighteen months of the occupation by the Triads.

CHAP. XII.

EVIL EFFECTS ARISING FROM BANDAGING THE FEET OF FEMALE CHILDREN. —ORIGIN OF THE CUSTOM. — EUROPEAN WORKS TRANSLATED INTO CHINESE.—MUIRHEAD'S GEOGRAPHY.—MILNER'S HISTORY OF ENGLAND. — CHINESE ARITHMETIC. — CHINESE MATHEMATICIANS. — BOTANY. — HERSCHEL'S ASTRONOMY. — MEDICAL MISSION AT LOO-CHOO. — CHINESE ARMS; THE GINGALL; FIRE-BALLS; FIRE-POTS AND STINK-POTS; ROCKETS.

SEVERAL cases of diseased ancle-bones in girls were brought to the hospital at Shanghai, the result of the practice of binding the feet, common in China. Considering the vast number of female children who suffer this distortion, the instances of diseased bone are few.

The practice is begun when the child is from six to nine years of age; if after the latter age, the suffering is proportionately increased. Long bandages of cotton cloth, an inch in width, are folded round the foot, and brought in a figure of eight form, from the heel across the instep, and over the toes; then carried under the foot, and round the heel, and so on, being drawn as tight as possible. This process is not effected without much pain, accompanied by bitter lamentation from the sufferer. The feet remain for a long time very tender, and can ill bear the pressure in walking; sometimes there is great swelling of the foot and leg, caused by the ensuing inflammation. After some years,

if the bandage has been well applied, so that the pressure is regularly maintained, the pain wholly subsides, and the sensibility of the foot is so far deadened, that there is hardly any feeling in the compressed parts. Bungling manipulation, however, causes unequal pressure, and various ill consequences follow. There is a class of women whose vocation is to bandage the feet of children, and who do their work very neatly; and from what I have seen, the Chinese women, who in childhood have undergone careful treatment, do not suffer much pain, beyond the weakness of the foot, from the destruction of the symmetrical arch, and the inconvenience of being unable to walk when the foot is unbound and unsupported. If the feet have been carelessly bound in infancy, the ancle of the woman is generally tender, and much walking will cause the foot to swell and be very painful.

To produce the diminution of the foot, which is the object of the bandaging, the tarsus, or instep, is bent on itself; the os calcis or heel-bone, is thrown out of the horizontal position, and what ought to be the posterior surface brought to the ground. The ancle is in this way forced higher up the leg than is natural, producing, in fact, *talipes calcaneus;* the four smaller toes pressed down under the instep, are checked in their growth, until at adult age they are like flakes of skin, folded under the ball of the great toe. Thus, all that is left to go into the shoe, is the lower end of the os calcis, and the whole of the great toe. In a healthy constitution, this constriction of the foot may take place without any very serious consequences; but in scrofulous habits, the navicular and cuneiform bones support-

ing the great toe are, from the constant pressure and irritation to which they are exposed, very liable to become diseased. Many cases have been seen, where caries, softening, and even death of the bone, have taken place, accompanied with much suffering.

The Chinese women have very small hands and feet; but this practice of bandaging the latter utterly destroys all symmetry, according to the European idea of symmetry, and the limping, unsteady gait which it produces is to a foreigner distressing to behold. Not many of the women can walk far, or quickly, or even on rough ground, without appearing to be in pain. Another serious inconvenience of small feet, is the liability of their possessors to fall and injure themselves. Several instances of such injury appeared at the hospital. An old woman of seventy years, hobbling down stairs, fell, and fractured her legs. She was in a critical state for some time, owing to threatened mortification of one leg, but the unfavourable symptoms passed, and finally the bones of both legs united properly.

Another woman, who was superintending the spring cutting of bamboo sprouts in her bamboo grove, fell, owing to her crippled feet slipping among the roots; compound fracture of one leg was the consequence, and the upper fragment of the tibia stuck into the ground. The soft parts of the leg were so much injured, that amputation was recommended; but her friends would not consent, and she soon afterwards died of mortification of the limb.

A third case was that of a woman who had slipped and fallen down stairs, causing compound fracture of

the leg; she eventually did well, and the bones of the leg united completely.

In my report of the Chusan hospital for 1840, it is said, that of all the women who came to the hospital, and of others seen in various parts of the island, not one had feet of the natural size. The feet of some of the women were not compressed so much as in other cases; but the practice of confining the feet during growth is universal at Chusan, while at Canton and Macao, many women have their feet entirely free, and of the proper size. Many women came to the hospital with various diseases and ulcers of the leg, but only in one or two instances was the affection caused by the compression of the foot, and the unnatural distortion of its bones. How far this practice is injurious to health cannot be said with certainty, but from the observation of many instances among both children and adults, in different classes of society, it would appear not to cause so much misery as might naturally be expected. Frequently, in the country, strong healthy women, with their feet compressed, have been seen walking about with readiness, apparently wholly free from pain in the feet; others have walked several miles to the hospital, and returned the same day. The effects of the habits of a people upon their general health and activity, are always worthy of close observation; and though this treatment of the feet would appear to be torturing to the last degree, and its consequences are to us unsightly, it is perhaps on the whole not more injurious to health and comfort than some of the practices inflicted by fashion on the female sex in Western nations.

Dr. Parker, who was then at Canton, gives, in his report for 1847, the following illustration of the effects that sometimes follow the compression of the feet in Chinese children.

"Luh Akwong, an interesting little girl from Honan, seven years of age, was brought to the hospital. Agreeably to a custom that has prevailed in China for thousands of years, the bandages had been applied to her feet, occasioning excessive suffering, which after the lapse of a fortnight, became insupportable, and the parents were reluctantly compelled to remove the bandages, when, as the father represented, the toes were found discoloured. Gangrene had commenced, and when she was brought to the hospital, it had extended to the whole foot. The line of demarcation formed at the ancles, and both feet were perfectly black, shrivelled and dry, and nearly ready to drop off at the ancle-joint. Both feet soon after separated, leaving the stumps healthy, the granulations rapidly covering the bone, and new skin forming at the edges. She was soon afterwards taken home, and the last time she was seen, the stumps were rapidly healing. Since the occurrence of this case, others of a similar nature have been heard of, a painful comment upon the cruelty of this custom, to which millions in China have been subject during many centuries past."

The origin of this practice has been ascribed to Tan-ke, an infamous Empress, B. C. 1100, who was born with club feet. She is represented as having great influence over the Emperor, whom she induced to issue an edict, adopting her feet as the model of beauty, and requiring the compression of infants' feet, so as to con-

form them to the imperial pattern. This account is necessarily traditionary, as it dates from a period long prior to the universal destruction of Chinese books in the Tsin dynasty, B.C. 300. Had the custom been introduced 200 years since, by the conquering Tartars, as some European writers have stated, it must have been so recorded in existing history.

An intelligent Chinese furnishes the following account of the origin of the custom. "The compression of the feet of female children, tradition says, commenced under the Emperor Yang-te, of the Suy dynasty, A. D. 695, who ordered his concubine Pwan to bandage her feet, and in the sole of her shoe was placed the stamp of the lotus flower, with aromatics deposited within it, so that at each step she took there was left on the ground the print of the lotus flower: hence the saying, that her steps produced the golden lotus; and to the present day, men compliment little girls with small compressed feet, by designating them 'the golden lotus.'"

The fact that none of the Chinese classics alluded to the custom, is presumptive evidence that it did not exist so early as the days of Confucius. During some of the successive dynasties, as under the Ming dynasty, when it was inflicted upon comparatively few, the practice was partially suspended. In the present reign it is very general, except among the Tartars.

Dr. Macgowan also, in one of his reports referring to this subject, says: "Ulcers are very common among the poor; the worst form of these that have been treated were on the feet and legs of women. Bandaging the feet, if not the cause of ulcer, certainly pre-

vents, to a great extent, the cure; the women are also affected with corns and callosities of the feet. That a custom so barbarous could be imposed upon a comparatively civilised country, is one of the most singular facts in the history of our race, and illustrates the deference which the Chinese pay to the imperial wishes.

"The custom is of comparatively modern origin, and owes its existence to the whim of Li-Yuh, the licentious and unpopular prince of Keang-nan, whose court was in Nanking. He ruled from A.D. 961 to 976, and was subdued and finally poisoned by the founder of the Sung dynasty. It appears that he was amusing himself in his palace, when the thought occurred to him that he might improve the appearance of the foot of a favourite concubine. He accordingly bent her foot, so as to raise the instep into an arch, to resemble the *new moon*. The figure was much admired by the courtiers, who began at once to introduce it into their families. Soon after, the province of Keang-nan again became an integral part of the empire, from which point the new practice spread throughout all provinces and all ranks, until it became a national custom. Many lives were sacrificed by suicide. Those females whose feet had not been bound were persecuted by their mothers-in-law, and despised by their husbands, so much so, that they hung themselves or took poison. About 150 years after the origin of the practice, we find a poet celebrating the beauties of the 'golden lilies;' and from his description, it would appear that six centuries ago, they were of the same size as those of the present day. According to the upholders of the development theory, such continued compression for

centuries should have occasioned a national alteration in the structure of the Chinese foot, but nothing of the kind is observed; for until they attain the age of seven or nine years, when the painful process of bandaging commences, the feet are perfectly natural both in size and figure. This custom, though deeply entwined in the feelings of the people, could be abolished by a single stroke of the vermilion pencil. The present dynasty could abolish the cruel custom, with less opposition than was experienced in introducing that degrading mark of subjection — the tonsure.

"There have been and now are in China, those who possess the humanity and moral courage to express their dislike of the practice. Among them may be mentioned Yuen, a member of the Hanlin College, a writer of celebrity in the latter part of last century. In one of his works he represents Prince Li-Yuh as suffering in purgatory for the introduction of such a vile custom, and awaiting with much impatience the expiration of the 700 years which he had been condemned to suffer before he could attain to his original state of a priest in Sungsau, but in profound ignorance of another punishment which awaited him on the completion of the first period. History relates that a celebrated robber, during the period of anarchy which ushered in the reigning dynasty, cut off the feet of an immense number of women, and made a pyramid of them. The spirits of these women, several myriads in number, are represented by Yuen as vociferously demanding of Heaven further chastisement upon Li-Yuh, whom they regard as being the author of their sufferings, and of small feet, to which the robber had an antipathy. Wherefore the prince

was condemned to make a hundred myriads of shoes for these women.

"It may here be added, that Chinese females can scarcely stand, and cannot walk, without their shoes."

Allusion has been made to the works of general information, written and translated by Europeans in the Chinese language, for the use of schools and for distribution amongst the educated portions of the people. In the year 1845, Lancelot Dent, Esq., then at Shanghai, acted in this matter with his accustomed liberality. He placed at the disposal of the writer, the sum of 1000 dollars, for the publication of educational works adapted for the diffusion of useful knowledge among the Chinese. The first intention of using a portion of this donation in publishing a revised edition of Mr. Gutzlaff's work on geography, written some years ago, was abandoned; and finally the Rev. W. Muirhead, of the London Missionary Society at Shanghai, undertook the preparation of a treatise on geography. Two volumes were printed in 1853—54; the first, on political and descriptive geography; the second, on physical and mathematical geography; both volumes being illustrated with maps and plates, and beautifully printed at the London Mission Press, with Mr. Dyer's metallic type. The preface thus speaks of the general character of the work: "In the East, the most confused and absurd notions have prevailed on the subject of geography. Some have supposed that their own country comprehended the greatest and fairest portions of the globe, while all beyond it was exceedingly limited in its extent, and formed the abode of mere 'outside barbarians.' This idea has most extensively obtained

amongst the Chinese, who have on that account been disposed to think and act in regard to foreigners under the influence of extreme narrow-mindedness and ridiculous national pride. The astronomical, mathematical, and geographical labours of the Jesuit missionaries, and the commercial intercourse which Western nations have long had with the Chinese, might have convinced them of our superior science and civilisation, and altered their comparative estimate of foreigners and themselves. But from the peculiar constitution of the Chinese mind, and the tenacity with which they adhere to old-established customs and opinions, it does seem that, hitherto, practically little has been done towards their enlightenment and improvement in this respect. At the same time, from the increasing intercourse, civil and religious, which they now have with Western nations, it is to be hoped that we shall soon see gratifying proof of advancing intelligence, and high appreciation of such useful scientific knowledge as foreigners are endeavouring to introduce among them. In aiming at this object, it is indispensable that we should give them satisfactory information on the extent and resources of the various countries of the globe, and the mental and moral status of their inhabitants. This will go far towards modifying their ideas of their own relative character and position, and breaking down the barriers that still exist between them and the civilising influence of the Western world."

The work was compiled from various sources, Chinese and English. The excellent geography published in Chinese, in 1846, by Mr. Marquez, of Macao,

and Mr. Milher's English work, being chiefly employed. The "Abstract of Geography," by the late lieutenant-governor of Fu-chau, has also been of great service. The entire work has, however, been carefully revised and enlarged, so as to render it interesting and useful to the Chinese scholars who are engaged in studying the topography, population, climate, manners, and customs, religion, government, history, and productions of foreign countries. The second volume, on physical geography, contains three sections; the first treating of geology, the structure of the rocks, with their series and fossils, mineral veins, and general view of the science; contour of the land, continents, islands, mountains, valleys, volcanoes, earthquakes, &c. *Hydrography:* water, springs, rivers, lakes, oceans, tides, currents, &c. *Meteorology:* atmosphere, winds, clouds, fogs, rain, snow, sleet, dew, temperature, climate, electric, magnetic phenomena. *Light:* nature of light, colour, rainbows, halos, dry fogs, ignis fatuus. *Botany:* plants, growth, nourishment, classes, age of trees, forms of vegetation, marine vegetation. *Zoology:* arrangement, distribution of species, insects, fishes, reptiles, birds, mammalia, &c.

The second, or Mathematical Section. — Globular form of the earth, the size of the earth, space, forces of the universe, motions of planets, solar system, day and night, seasons, time, zones, and climates, latitude and longitude, maps, &c.

The third, or historical section, notices the geography of the ancients, of the middle ages, and of modern times. The arrangement of the work is very much on the plan of Mrs. Somerville's "Physical Geography,"

additions being made from the works of Rev. T. Milner and Mr. Hugo Reid.

The importance of the several branches above noticed is a sufficient reason for communicating correct knowledge of them to the Chinese. The acquaintance with some of them which they have had for a long period was, at the best, crude and imperfect; the other branches of knowledge are now for the first time brought under their attention, and in a style which they will readily understand.

These volumes have been widely distributed, and applications for them have come from all quarters and people of all ranks. The officers of government have repeatedly requested that copies might be sent to them; and in Japan also the book is well known and highly valued. Chinese merchants from that place have frequently called on Mr. Muirhead, stating they had been particularly commissioned by the Japanese authorities to take back with them as many copies as they could procure.

In 1856 the same gentleman published a translation of two volumes of the "History of England," by Rev. T. Milner; giving a record of events, and the actors in them, at a particular period, and illustrating their influence upon the manners and civilisation of the people. Appended to it is a chapter on the constitution and resources of the British empire, from Chambers' "Information for the People." The Chinese histories, though very extensive and largely studied by native scholars, yet, as treating of a civilisation widely different from that of the West, have a feeble influence over the general mind. The English history, on the other hand, has awakened

interest and inquiry on the part of several intelligent Chinese readers of this work, which it is believed will enlighten many of that people on matters pertaining to their present and future welfare. The work has a very large circulation, and, like the "Treatise on Geography," has been eagerly sought for, and taken to various parts of the empire.

Chinese magazines have been issued at different times; one at Hongkong, under the editorship of the Rev. Dr. Legge, W. H. Medhurst, Jun., and Charles Hillier, Esqrs.; and one at Shanghai, by A. Wylie, Esq. These have been useful in supplying information to the Chinese in different branches of knowledge and questions of politics, which did not, however, relate to matters of native government in any wise. These books were circulated periodically, and sought and paid for by the people.

In 1854, Alexander Wylie, Esq., superintendent of the London Mission Press, published a small compendium of arithmetic, to supply a want of such books in the native language felt by teachers amongst the Chinese, and intended this to be the first of a series of works on mathematics for the use of schools. The ability of the Chinese to deal with mathematical truths is evident from the number of works on the subject by native authors. These at once place the foreigner in a most favourable position who desires to ascertain the actual state of the science. He finds ready to his hand in these works a well-understood technical nomenclature, the want of which in some other branches of knowledge has proved no slight embarrassment to those who have been wishful to give such knowledge a

place in the native literature. There are native works on arithmetic, some on a particular branch, others diffuse and voluminous, the price of which excludes them from general use, the only works of a popular character being the small manuals on the use of the abacus, and these may be found in any book-store.

The various rules of these books have been adopted in Mr. Wylie's work, so as to prepare the scholar for the study of the higher branches of European science; examples are given in illustration of the rules, so as to obviate any difficulty on the part of the student. The mathematical repository of the Emperor Kang-he forms the groundwork of the volumes, several of the rules being transferred verbatim, while others of them are modified and rearranged. Some of the questions for exercise are borrowed from Matteo Ricci's work, Tung-wanswan-che, and a few from a native work, Swan-pa ta-ching, all of them carefully recalculated and submitted to a Chinese scholar, Le-shen-lan, the author of Chinese mathematical works of considerable merit.

In 1857, Mr. Wylie also published a translation of Euclid from the seventh to the fifteenth books. The first six books had been brought out by Mat. Ricci, who had been assisted by his native convert, Seu-kwong-ke (called Paul Seu, or Father Paul), in the year 1608. This science was new to the Chinese, who, though astronomy and several branches of mathematics had been studied by them from remote antiquity, had nothing analogous to the demonstrative reasoning of Euclid. Seu himself seems to have entered into the spirit of it with great zest, and anticipated that it would become a favourite study. This has been in great degree realised, for

the book attained a greater celebrity than any other book published by Europeans in China, and almost every literary man is acquainted with it, at least by name. Seven editions have been printed, besides many copies taken in manuscript by those who could not purchase or obtain the printed book. The name of the new science was Ke-ko yuen-ppun, the elements of quantity (or so much), and this term is used in literary composition. In the second edition Seu regretted that the work had not been completed, and hoped that the remaining books would, ere long, be added. Of these Ricci had prepared part of the translation, but his death, within two years of the publication of the six books, put a stop to the work.

A Chinese mathematician of great celebrity in the commencement of the present dynasty, named Mei-wuh-gan, feeling the want of the remaining books, endeavoured to supply the deficiency from his own resources, and prepared a supplementary treatise on geometry, in which he discusses the geometrical properties of solids, &c. Others of the Chinese have also written on this subject, showing how great is the interest taken by native scholars in mathematical studies.

In 1631, Jules Aleni, a Jesuit missionary, published the "Essentials of Geometry," an explanation for the most part of the mode of drawing certain figures with those problems most requisite in practical astronomy.

The present translation of the last nine books of Euclid was undertaken at the earnest wish of a native scholar, Le-shen-lan, who materially assisted in the translation, and arranged the work in its present form. His

eminent qualifications for such a task were an inducement to proceed with the work, and helped much to lighten the labour of the foreign translator (Mr. Wylie), at the same time securing for their joint production greater accuracy. The first draft was little more than half completed when application was made by Han-ying-pe, a Keu-jin (M.A.) of Sung-kiang, for permission to print the work at his own expense. The finished manuscript was therefore entrusted to him, and was passed through the press with great care. Mr. Wylie concludes his preface with the remark, "To accompany this issue with an apology would almost seem out of place. Truth is one; and while we seek to promote its advancement in science we are but preparing the way for its development in that loftier knowledge which as Christian men and missionaries it is our chief desire to see consummated."

This was followed, in 1859, by Mr. Wylie's translation of "Loomis' Algebraic or Analytical Geometry, and Differential and Integral Calculus." This was another of the mathematical series already alluded to, the first of which was succeeded by a treatise on algebra, in preparation for the present work. "Although probably for the first time the principles of algebraic geometry are here placed before the Chinese in their own language, there is yet little doubt that this branch of the science will commend itself to native mathematicians, in consideration of its obvious utility. The readiness with which they adopted Euclid's elements of geometry, computation by logarithms, and other novelties of European introduction, cannot be forgotten. A spirit of inquiry is abroad among the Chinese, and a

large class of students receive with avidity instruction on scientific subjects from the West. Mere superficial essays and popular digests far from suffice to satisfy such applicants, hence the desirableness of works which take a fuller view of the separate branches of science, and enter so far into detail, that students may be able to verify the statements which are laid before them. The present work will, it is hoped, supply in some measure what is now a desideratum, and for a ready understanding of it a full list of the technical terms used in this work, and in the native works on mathematics, is afforded."

The book is a beautiful specimen of printing in the Chinese mode, by wooden blocks; the diagrams and illustrations are of excellent character.

The Rev. A. Williamson, of the London Missionary Society, published in 1858 an excellent little treatise on the "Elements of Botany," giving an account of the structure, physiology, habits, and general character of plants, the mode of flowering, production of seed, and also the plan of classification of the vegetable kingdom. The book is beautifully illustrated, and, though concise, gives much valuable information, and will prove useful in introducing the Chinese to the knowledge of this science. The Japanese, it is believed, having had copies of this work, and the others beforenamed, sent to them, after translating them into the Japanese language, published them as their own productions.

In 1859—60, Sir John Herschel's "Elements of Astronomy" were brought out in Chinese by Mr. Wylie, in a series of beautifully printed volumes, illus-

trated by diagrams. Much labour has been bestowed on this translation, and the work is a very valuable addition to the works already referred to for imparting a knowledge of European science to the Chinese. Mr. Wylie in his preface remarks, "that from a very early period the Chinese had been diligent observers of celestial phenomena; many volumes of facts in the history of astronomy had been collected; and on the principle of recurring sequence they were enabled to predict within certain limits the various phenomena which presented themselves to the eye. To ascertain the causes of the complex movements observable among the heavenly bodies was not so much an object with them as to employ their various irregularities in perfecting a system of mathematical chronology which should stand the test of ages unimpaired; and if they failed in this respect, their failure was attributable to their imperfect means of observation. Their skill in calculating astronomical formulæ was all that could be desired, but the want of efficient instruments prevented their gaining a knowledge of those delicate perturbations which if left out of account derange the best theories of computation.

"Such was the case when the Jesuit missionaries reached China in the 17th century. Astronomical calculations were sadly at fault, producing much confusion in the state calendar. Schall, Rho, Terence, and Longobardi compiled, under imperial patronage, and with the aid of native scholars, an extensive work, which is a record of the astronomical knowledge they imparted to the Chinese. Since their time various works on astronomy have been written by native students, who

more or less follow the works of the Europeans thus made known to them.

"Towards the latter part of the last century, a European missionary, known to the Chinese by the name of Tseang-yew-jin, drew up a clear and faithful description of the solar system, which, differing as it did from the teachings of earlier missionaries, naturally suggested doubts in the minds of thinking natives, but must have greatly aided them in the search for truth. In 1849, Dr. Hobson wrote a short treatise on astronomical science, before alluded to.

"This work, which is a translation of the enlarged edition of Herschel's 'Outlines of Astronomy,' gives a more complete view of this science as it now stands in Europe than has yet been presented to the Chinese; and the various facts, theories, researches and phenomena here detailed cannot fail to awaken in inquisitive minds a desire to become better acquainted with these and kindred facts in nature, which is calculated to exercise a healthful influence on the intellectual character. That such facts may lead to juster and more exalted conceptions of 'Him who hath created these orbs; who bringeth forth their host by number, and calleth them all by their names;—who hath made the earth by His power, established the world by His wisdom, and stretched out the heavens by His understanding,' is the sincere desire of the translator."

Liú-Chiú, Lew-Chew, or Loo-Choo.—In the year 1845, the Loo-Choo naval mission was established by naval officers in England for the purpose of sending Christian missionaries to the island above named. In the following year Dr. Bettelheim, a native of Hungary, of an

Israelitish family, educated as a physician after his conversion to the Christian faith, becoming known to the society, was sent as their agent to Loo-choo.

These islands, though having a king, are dependencies of Japan, and entirely under the control of the emperor of that country, the exclusive policy of which in relation to foreigners is applied to them also. So rigorously was this policy exercised towards Dr. Bettelheim, that the Japanese authorities at Loo-choo co-operated with the Chinese government to induce Governor Seu, the Chinese Imperial Commissioner, to urge his Britannic Majesty's plenipotentiary to remove him from Napa by force.

At this place, the port of the larger island, Dr. Bettelheim had much difficulty in obtaining a residence, the people being exceedingly jealous of his object in coming amongst them, and the government using all means to prevent his continued residence. Year after year this persecution continued. Guards were placed round and even within his house, that he might not obtain influence over them; his servants were changed from time to time; he might not walk along the streets except in the company of his guards; every difficulty was placed in the way of his procuring provisions; and all means were adopted to render his life miserable. After he had acquired a knowledge of the language he was not allowed to have any intercourse with the people; only by *stealth* could he preach the gospel to them, or when escaping or outwalking his guards for a few minutes he would step into a house and speak to the inmates. To prevent even this the guards, as they went along the streets, would call out to the

people to shut the doors, — and as they dared not offer personal violence to the foreigner, they punished those natives to whom he might speak, so causing the people to flee such dangerous conversation. His appeal to the government to be allowed to minister to the many sick and diseased whom he saw, was at once refused, on the ground that their own physicians were well skilled, and that no foreigner could possibly be acquainted with the nature of their diseases, and that he could do them no good. What Dr. Bettelheim was able to effect in the way of medical and surgical aid, during his stay, is best told in his own words: — "Advantages have been obtained through my medical practice. Numerically they are least because most opposed by government, and the practice of medicine is difficult where free access to the patient is impossible. Our rulers went so far as to confiscate medicines, together with the bottles and boxes in which I had carried them to sufferers, and subjected the latter to punishment. Still, upwards of a hundred cases have fallen under my observation, fifty of which were in the first year, when the opposition was least. So convinced are the people of the efficacy of our medical aid, that they wait in the dark in the bushes and jungle near my house till I pass by, to beg for medicines. Our servants and their relatives, having greater facilities than others, have repeatedly had the benefit of our drugs; and as they are usually changed every tenth day this constitutes rather a considerable item of medical occupation. Our guards or spies, afraid of these my servants, yet consult me for themselves and friends; the difficulty of giving advice in unseen cases being overcome, as far as it can be, by minute inquiries.

There are some whom the door-guards from friendship or other reasons allow to pass, for the very purpose of medical relief, and even now and then persons connected with the government. One day I operated in haste upon a case of cataract in a dark hovel near the sea-side, while the yearly return junk from China, borne by a strong breeze into port, fixed all eyes upon itself including those of the spies. The patient was on the same day, and almost from under the knife of the operator, dragged away and driven where no one would tell me. Many months after, I succeeded in collecting circumstantial evidence that the man had recovered sight in one of the eyes operated upon. I was plainly told so by one of his relatives, though I do not consider his evidence as conclusive. This week I had information also of an alarming case of dropsy having been cured by my advice and by using my medicines."

Faith in God and an indomitable perseverance could alone sustain the missionary, in the midst of the opposition which imperilled his safety by night and by day. He was attacked in the street, beaten, and left senseless on the ground; at another time, robbed, and all his movables taken from his house; persecution was adopted to weary out his patience and drive him from the island. Every kind of annoyance and violence was used for this purpose; and had his enemies not been afraid of the consequences to themselves of putting him to death, they had doubtless proceeded to that extremity. The above account makes it plain, however, that but for the enmity of the government the people would gladly avail themselves of the help

of the medical missionary, who by that means could have secured a most valuable influence amongst them. As it was, an intelligent young man, one of the guards, listened frequently to the reading and explanation of the gospel, and became convinced of its truth. He was denounced to the authorities, imprisoned and loaded with chains, beaten, and almost starved to death. The efforts which were made by stealth to see him and converse with him were discovered, and in consequence the young man's sufferings were increased, and after many months of torture he sank under his miseries and died a proto-martyr, in the evangelisation of these islands. To Dr. Bettelheim his death occasioned deep grief and distress; the knowledge that this would be the case, instigated the officers of government to their cruel course, that the missionary might be made to feel the bitterness of having caused the misery and death of their prisoner. This policy of the government was maintained with increasing virulence, until after eight or nine years of the unequal strife, Dr. Bettelheim sought for a time quieter scenes and more propitious circumstances in Europe, whither he returned in 1855 or 1856. He was succeeded at the station by Mr. Morton, who was compelled shortly to retire owing to broken health. Dr. Bettelheim has not since returned to the islands, and probably the mission will not for the present be resumed.

Notwithstanding the determined opposition which, as the foregoing statement shows, was manifested to the presence and actions of a foreign missionary, I yet believe that an important auxiliary to our obtaining an influence in Japan, as well as at Loo-choo, will be

a medical mission to the sick and diseased amongst the people. The renewed attempt to bring amongst them relief of this kind, of which some experience has already been gained, will be followed by a similar result to that realised in China, where medical science has to a large extent been the pioneer of the gospel of Christ.

It has been stated in the account of the siege of Shanghai, that the Triads who held the city against the Imperialists, had acquired the art of making shells from a marine who had deserted from one of the foreign ships, and who had previously been employed in the ordnance department. The shells were four and five-inch shell, but very irregularly cast, the sides of different thickness. The brass fuse with which they were furnished was tolerably made. The constant firing of the Triads against the Imperial troops, who were posted not far from my house, enabled me to notice the range of their shells, which were thrown half and three quarters of a mile, frequently bursting in the air. A shell breaking through the roof one day fell in the hall of the Chinese hospital amongst a number of people, and though it burst as it fell, damaging the tiled floor and tearing up the benches and other furniture, no person was injured. The fragments of the missile were gathered up, and with the brass fuse are now in the Jermyn Street Museum.

During the conflict cannon shot from both parties were thrown in and around the mission premises. The best balls were such as had been procured from foreigners, who at one time supplied these articles as well as gunpowder to the Chinese. Of the balls which the

latter make for themselves, several were brought to me. Some were twelve and eighteen-pounders of wrought iron, roughly hammered to a roundish form, and others of cast iron very irregular, and a few of brass. In several instances articles of brass had been hammered into a lump, and placed in a mould for a sixteen-pounder; the mould was then filled with pewter or lead. Some twelve-pounders had been made by placing a clay core in the mould, and then running melted tin and pewter round it; the clay was left inside and fired with the ball. These balls were brought to me after they had been fired, and one of them, which had been much dinted by striking against a wall, showed how it had been made. Small balls, four and six-pounders, were made of solid lead; if a ball happens to be too small and a larger is not at hand, it is wrapped in cotton rags or any kind of cloth to make it fit the gun.

The most effective weapon used by the Chinese, and which does the greatest injury to an enemy is the gingall, a long musketoon like a large duck-gun, carrying a two-ounce ball, or more frequently pieces of iron rod or scrap iron. The range is wide, and the use of this arm is confined to certain of the troops, who are exercised with it. Two men are attached to each gun; in carrying it, one is at each end, the man at the stock end is the marksman. Arrived at their ground the other man places the middle of the barrel on his right shoulder, and stoops a little to give the marksman a good rest, who thus takes aim easily. The piece is held on the shoulder by means of a red cloth, thrown or tied round the barrel, and by pulling

down the ends of the cloth the supporter keeps the barrel firm in its place.

Several of the cannon seen at the siege had been brought down from the north, and were very large. They carried a thirty-pounder shot, but were large, massive guns, thick and heavy, much longer and heavier than our ten-inch guns. They had been brought a long distance by boats, and were then dragged across the country by human labour, as has been already explained.

The fireball is simply a small bag of coarse gunpowder with a slow-match introduced, which being lighted, the ball is thrown at a man or on board a ship. It speedily ignites, and the explosion is very mischievous. The firepot is thrown in like manner; this is a small jar filled with powder and lighted by means of a slow-match. These are thrown in large quantities from the crow's-nest on the mast of the attacking junk on to the deck of the enemy's ship, to set it on fire or to drive the men from the guns by the sulphureous smoke these missiles produce. The powder with which they are made is so coarse and badly mixed as to ignite very partially and cause much smoke, from which they are called by foreigners "stink-pots." Foreign war-ships attacking pirate crafts have often had their decks covered with these firepots, the men being compelled for a time to leave their guns; and it became customary to station one or two good marksmen in the tops of the man-of-war to pick off the occupants of the crow's-nest before they had time to throw these combustibles. These hand-grenades, which inflict severe personal injury, are a favourite weapon with the

Chinese. At the siege of Shanghai they were thrown by both parties with great dexterity and effect.

Another weapon used by Imperialists and Triads, when fighting about the walls, was a bamboo, five or six feet in length, and two or three inches in diameter. This being cleared out to form a tube, and a thick plug of clay thrust into one end, the tube was wrapped round with rattan and filled with meal powder, which was rammed tight. When engaged in a hand to hand struggle, the tube was lighted at the open end, and the fountain of fire which poured forth was played on the assailants with irresistible effect. The imperial troops, having mined the wall, when rushing into the city, have often been driven back by these firetubes in the hands of the Triads.

The mines which the soldiers before Shanghai, dug under the ditch to the walls, large portions of which were on several occasions dislodged, were so well made as to excite the astonishment of foreigners: the countermine was also tried, and in several of these "diggings" severe conflicts took place. On one occasion the general officer over a large body of troops ordered the preparation of two mines, expecting so large a portion of the wall to be breached as to enable his men to make a rush and take the place by storm. All preliminaries for the event were accomplished, and the mine was sprung. As had been expected the wall was breached, but, owing to some miscalculation, the general and his men stood *over* the mine, thinking they were at the side, and were blown into the air! He and many of his men were killed, the rest were alarmed and ran away; on which the Triads, taking advantage

of the confusion, rushed out and signally defeated that part of the besieging force.

On the occasion of springing another large mine it had been arranged that at a certain hour, early in the morning, a large body of troops should be on their way to the city, and the mine explode at a given moment and they would rush through the breach. By some error the mine was fired before the troops had reached the given place, and when only a few unsupported soldiers were at hand. The Triads now swarmed out, and meeting the troops confusedly hurrying on, defeated them. After capturing one of the outside forts and burning a camp, they returned to the city with much booty and several prisoners whom, with their accustomed brutality, they cruelly murdered.

In another instance, before the Imperialists could explode a large mine in which they had placed about half a ton of powder, the Triads came upon them, drove away the soldiers, and seized the powder for their own use, at a time when they were in great need of a supply.

Rockets also are largely used in Chinese warfare. Fixed near the end of a long bamboo arrow having an iron point, these weapons, besides inflicting severe wounds, would set fire to houses. Most of those I saw used fell short of their mark, either from being badly made or inexpertly handled; the rest reached their destination after a long flight, and fell amongst men or houses. These rockets were well seen during a night attack, when both parties used them in great numbers. I have observed, when watching their flight with interest, the superiority of the imperialist rocket.

The Chinese matchlock is of rough and unfinished construction, and very liable to burst, owing to the imperfect welding of the barrel. The bullet cannot be rammed home, nor can any wadding be used, or the piece would burst immediately.

So careless are the Chinese in relation to gunpowder that it is not very pleasant to go near any of their powder stores. They will smoke at the door of their powder mills, and seem ignorant of the hardihood of the proceeding, as was witnessed in the case of a man in a boat laden with the material, who sat on one of the barrels smoking his pipe. One day, as I was walking along a street in the city, I observed two men, one of whom carried a large tub of gunpowder on his shoulder, the other walked behind with the lid of the tub in his hand and smoking his pipe. As the tub was more conveniently carried without its cover, this had been taken off. Judging by the indifference with which they passed along with the exposed gunpowder, they might have forgotten the habit of the people of sitting at their upper room windows smoking with their pipes outside.

CHAP. XIII.

DIPLOMATIC MISSIONS.—WAR OF 1839.—EVASIONS OF THE TREATY OF NANKING. — INSULTS AND ASSASSINATIONS OF FOREIGNERS. — MR. PARKES THE CONSUL, AND THE AFFAIR OF THE LORCHA. — LORD ELGIN APPOINTED MINISTER PLENIPOTENTIARY. — MILITARY EXPEDITION OF ENGLAND AND FRANCE.—TREATY OF TIEN-TSIN.—REPULSE AT THE PEIHO FORTS. — SECOND COMBINED EXPEDITION. — MARCH OF THE ALLIES UPON PEKIN. — TREACHEROUS SEIZURE OF MR. PARKES AND HIS COMPANIONS.—CAPTURE OF PEKIN.—DESTRUCTION OF THE EMPEROR'S PALACE.— CONVENTION.—GRAVE ERROR ON THE PART OF LORD ELGIN. — REBELLION IN THE CHINESE EMPIRE. — OUR POLICY.

THE relations between Great Britain and China have of late attracted a large amount of public attention, and assumed an importance which they never had before. In endeavouring to give a short account of the state of things affecting our intercourse with that country, it is necessary briefly to review the various steps of that intercourse.

In the year 1793, Lord Macartney was sent as ambassador from King George III. to Kien-lung, the emperor of China, and obtained an audience of his Majesty, but no concession was made as to increased facilities for trade at other ports than Canton.

In 1816 Lord Amherst was sent on an embassy to obtain permission for the residence of an English officer at Pekin, and again to press on the Chinese government the desire of liberty to trade at one or more northern

ports; but he was not permitted to see the then emperor, Kea-hing, and was treated with much rudeness and contumely by the Chinese officials.

These embassies were sent out by the English government at the instance of the East India Company. In reading the accounts of these embassies the same jealousy and suspicion is seen to be exhibited, and much the same line of argument followed by the Chinese, as is detailed in the account of the Russian embassy under M. de Ismayloff to the emperor Kang-he in 1721, in the work of John Bell, of Antermony; and it is amusing to notice how the same tactics were used on all these occasions to tire out the patience and forbearance of the foreign visitors, and at the same time to make as few concessions as possible. When the trade to China was thrown open on the expiration of the Company's charter, the English government determined to send out a nobleman, as chief superintendent of trade at Canton, in the hope that he might be able to hold direct communication with the Chinese officers, instead of through the Hong merchants, as formerly. Lord Napier accordingly was sent out in this capacity in 1834, but the Chinese government would not recognise him in his official character, nor would they correspond with him. All intercourse took place through the Hong merchants. Much ill feeling was exhibited towards his lordship, and the harassing nature of his duties preyed upon his health to so great an extent that he fell sick, and died in October of the same year, four months after his arrival in China. Captain Elliott, R.N., succeeded Lord Napier as chief superintendent.

The first war broke out in 1839, in consequence of

the violent conduct of Commissioner Lin in his endeavours to put down the opium trade. In doing this he threatened the lives of her Majesty's civil officers, and resorted to such obnoxious measures, that reparation was demanded on the part of the English government. A force was sent from India to give effect to the demands made through Captain Elliott, who was appointed her Majesty's plenipotentiary at this juncture; but little was done beyond the occupation of Hong-kong as a dependency of the British crown. The Chinese deluded Captain Elliott with hope of peace, which they never intended to carry out, and after many mistakes and much blundering diplomacy, he was recalled, and Sir Henry Pottinger sent out with full powers to settle the business. He arrived in China in 1841, and the capture of Amoy, the re-occupation of Chusan, and the capture of Ningpo, followed in rapid succession.

In 1842 the expedition occupied Chin-kiang, and arrived off Nanking, where the treaty of Nanking was agreed to and signed.

Prompt and decisive as were Sir H. Pottinger's actions, still the exact stipulations of the treaty were not *at once* arranged, but left for *after agreement*. Consequently, though access to the interior of the city of Canton was stipulated for, when the time came for the carrying out of this concession endless excuses were made and delay requested by the Chinese commissioners. Sir Henry, instead of *at once* insisting on the fullest carrying out of this measure, consented to the delay. A time was, however, fixed when the entry should indeed be granted, and at the expiry of this interval in 1847,

Sir John Davis proceeded with a strong force to Canton. Not without opposition and some hostile measures he reached the city, and made his demand for the fulfilment of the treaty. *Delay* was again required, and Sir John left Canton without having accomplished his object, another period of two years being agreed upon. On the expiry of this third interval, Sir G. Bonham went to Canton with a large number of ships of war, and required that the entry to the city should be finally granted. But again the point was evaded, and nothing was gained from the Chinese but insult and derision. Sir George was, however, not responsible for this result, as his orders were explicit not to use force in carrying out his demand as stipulated for by treaty. Thus the affair was left undecided.

Much has been said and much more misunderstood about the demand for right of entry to the city of Canton, and a few remarks here will not be out of place. The right of entry was necessary because it was impossible to reach and hold that direct communication with the high provincial officers, by which many difficulties would be prevented. The officers always required delay in granting this demand, on the ground that they feared the people were not prepared for so great a change, and that they could not restrain the people if they opposed such entry, the fact being, that the officers themselves incited the people to oppose it. The natives would have been content to allow foreigners access to Canton, as were the natives of Fu-chau, Shanghai, and other places. The difficulty was not with the people, but with the officers. They called us barbarians, insulted us whenever they had

the opportunity, and stirred up ill feeling against us on the part of the people, who, seeing that their officials were opposed to us, naturally carried out the same idea, and were placed in antagonism to us in every way. It was this spirit, excited by the officials, that made property and life itself so insecure at Canton. In the suburbs and in the country constant collisions took place, foreigners were insulted, pelted with stones, chased along the streets, and every indignity offered them that was possible, their boats on the river and the canals were attacked, and the lives of the passengers often endangered. At the village of Hwang-chuh-ke, in 1847, six unoffending foreigners, taking a walk, were attacked and murdered by the villagers, and when their mangled remains were demanded, they were sent down to Canton in a common leper boat, as adding the last insult that could possibly be made. Murderous attacks in constant succession kept up this feeling of insecurity, and it became necessary for foreigners habitually to carry defensive weapons.

Year after year thus passed by, till in 1857, the affair of the English lorcha "Arrow" occurred, in consequence of the Chinese officers at Canton seizing part of the lorcha's crew and taking away her flag, instead of applying to Her Britannic Majesty's Consul, if there was any ground of complaint against the master. A demand was very properly made by Mr. Parkes, the acting Consul, for an apology, but this was refused, and after a long correspondence in which the demands of the Consul were ridiculed and despised, the threat was made that force would be resorted to in order to compel the requisite reparation. This also being ridiculed, Sir M.

Seymour went up to Canton and desired a personal interview in the city, according to treaty arrangements with Commissioner Yeh. This being positively refused, no possibility of explanation regarding the question of the lorcha remained, and now only were hostilities resorted to to compel the Chinese to listen to the remonstrances previously made.

These measures resulted in the burning of the factories by the Chinese, the capture of the city of Canton, and of Commissioner Yeh himself, and his deportation to Calcutta, on the part of the English.

In the meantime Lord Elgin had arrived in China as minister plenipotentiary, to make such demands on the Chinese government as the circumstances required, for although Canton had been occupied, no apology had been made, nor any notice taken by the imperial government of the question that had led to the hostilities. The affair of the lorcha was not the real cause of the war, but rather the denial of right to entry into Canton, and the evasion of this stipulation of the treaty of 1842.

To prevent the recurrence of such evasions for the future, Lord Elgin, and Baron Gros the French plenipotentiary, proceeded to the mouth of the Pei-ho in 1858, with the allied forces, to require apology for what had passed, to demand that the former treaty should be revised, and that for the prevention of evasions by the provincial officers in future, the English minister should be allowed residence in Pekin, and direct communication with the high officers of the Chinese government be obtained. Thus our relations would not, as before, be continually baffled, and peace endangered at

the will of any subordinate who chose to be troublesome, and set himself in opposition to the rights provided for, but not *secured* by treaty. As the Chinese government would not listen to any arguments thus made, the Ta-ku forts were taken, the Chinese army dispersed, and the expedition moved on to Tien-tsin. Upon this, commissioners were sent to arrange the terms on which peace should be made, and the treaty of Tien-tsin was agreed upon, granting the residence of the English minister occasionally at the court, and conceding entrance to all parts of the empire, as well as the opening of several new ports for trade, both on the coast and up the Yang-tsze-kiang.

Now was the time when the right of entry to Pekin should be settled, and Lord Elgin ought to have secured an audience of the emperor, on the ground that the commissioners who had been sent to treat with him were found not to have the plenipotentiary powers they professed to hold. This was not done, and doubtless there were difficulties in the way of its accomplishment. As usual, in all our diplomatic arrangements with China, the *persistent* objections of the commissioners were listened to instead of being set aside, valuable time was lost, and the advancing season left no time to do more than get the treaty signed and the affair concluded. Whatever difficulties interfered with this audience of the emperor, subsequent events showed that a fatal mistake had been made by its omission.

Lord Elgin left China, and the Secretary of Legation, his brother, Mr. Bruce, was left in charge as Plenipotentiary, to exchange the ratifications of the treaties, and to claim his admission to Pekin. He proceeded to

the mouth of the Pei-ho in 1859, and to his surprise found the forts rebuilt and fully garrisoned, and the bed of the river obstructed by piles and rafts. On his remonstrating that the entrance of the river was closed he was told that he must go by another route,—the Peh-tang river,—which he very properly refused to do as the only river route to the capital was known to be by the Pei-ho. Admiral Hope then proceeded to clear the river of its obstructions, when the Chinese fired on the steamers engaged in this service. The ships returned the fire of the forts, the action became general, and our fleet was compelled, after suffering severe loss, to retire from the contest considerably crippled and disabled; and had it not been for the gallantry and courage displayed by the admiral and his officers, the force could not have been taken out of action at all.

Last year, 1860, Lord Elgin was again sent to China, to demand an apology for the attack on the fleet by the Ta-ku forts, and to insist on the ratification of the treaty of Tien-tsin. He arrived at the mouth of the Pei-ho with a large force, in conjunction with Baron Gros, who had also returned to China. The first step taken was the capture of the Peh-tang and Ta-ku forts, the latter of which had caused the disaster of the previous year. This was effected in a masterly manner, and the force marched on to Tien-tsin, thirty miles from the mouth of the river. The Chinese government instantly sent commissioners to effect a compromise, and promises were made that every demand should at once be granted if hostilities were stopped. It was supposed that this evinced a sincere desire for peace; but after some negotiation, first one obstacle was made and then another

until it appeared that the only object was to gain time by false offers of accommodation.

Whereupon the march was made towards Pekin. This quickened the proceedings of the Chinese government, and when the force arrived within a short distance of Tung-chau, which is about sixty miles from Tien-tsin and twelve or fourteen miles from Pekin, promises were again made, that every demand should be granted, and arrangements were entered into for the convention preliminary to the treaty. As the army was not to retire till the treaty was signed, proposals were made as to the place of encampment, and a request was sent that English and French officers should go to Tung-chau to make the needful arrangements. There can be no doubt that this was a treacherous plot, entered upon partly with the hope of entrapping Lord Elgin and Baron Gros, the folly of the Chinese leading them to suppose that personal possession of them would bring the war to an end, without any concessions being made. In the Chinese historical novel, the San-kwoh-che or History of the Three States, such plots are often related in which the hostile generals and high officers are thus deluded into skilfully laid traps.

Mr. Parkes, and his companions, civil and military, with a few soldiers, proceeded to Tung-chau, where the convention was finally agreed upon; and after remaining at that place one night, officers were sent to conduct the party to the proposed camping ground, which however was unexpectedly found to be occupied by the Tartar army. Mr. Parkes went to remonstrate with the commissioners on this point, fearing that some mistake had been made, for, as he had settled the terms of

peace only the night before, he could not but suppose the Chinese government really wished for peace. He was, however, rudely treated by the commissioners, and finding that the hopes of peace were futile, he and his companions endeavoured, under the protection of their flag of truce, to regain the allied camps; which however it was found impossible to accomplish, as they were stopped by a Chinese force. When Mr. Parkes and Mr. Loch applied to the commander in chief, Sang-ko-lin-sin, for a pass, they were seized and put into confinement. Then followed the binding with cords, loading with chains, imprisonment with felons, threats of decapitation, and other cruelties. Finally, after twenty-one long days had passed away, when the Chinese found that the army was close to the walls of Pekin, these two prisoners were set at liberty, with a French officer, two Indian soldiers, and four French soldiers and only then it was ascertained, to the horror of all, that all the English and French officers and gentlemen, and many of the privates, had died under the cruel treatment of the Chinese, who had allowed them to die one by one in the most distressing manner.

Of Mr. Parkes' conduct while in captivity Lord Elgin, in one of his despatches, thus writes: — "Mr. Parkes' consistent refusal to purchase his own safety by making any pledges or even by addressing to me any representations which might have embarrassed me in the discharge of my duty, is a rare example of courage and devotion to the public interest; and the course which he followed in this respect, by leaving my hands free, enabled me to work out the policy which was best calculated to secure his own release, as well as the attain-

ment of the national objects intrusted to my care." But it may well be asked, why were twenty-one days allowed to elapse before the prisoners were returned?

It was not until the army approached the walls of the capital and the palace of Yuen-ming-yuen had been seized, that any of the party were sent to the allied camp. The army waited till siege guns were brought to the front, and the French soldiers were also brought from Tien-tsin, before the advance was made; but surely the force that had defeated Sang-ko-lin-sin's army at Chang-kia-wan and Pa-li-chau could have proceeded to and taken Pekin. Had stern demands for instant restoration of the prisoners been seconded by continued advance of the army, long acquaintance with the Chinese and their official policy leads us to the conviction, that all the prisoners would have been set at liberty, nor any of them have died by inches from the savage cruelty of their captors. It is true that it was believed the whole party were in safety and well treated, but it is noticeable that this account came only from the Chinese officers, no communication of any kind having been received from the prisoners till nearly the time of their release.

It is with regret we read that day after day passed by in the interchange of letters and communications, the hollowness of which on the Chinese side is painfully evident, without any decisive step being taken to force the Chinese to return the prisoners. Had this been done, the sad tale of anguish and woe brought to camp had not, we think, been told to harrow the feelings of all who heard it; and, instead of the merciful deliverance from death of only Messrs. Parkes and Loch, the

whole party had been restored to their friends in as many hours as were the days painfully numbered by the unhappy captives.

On its being known that such cruelty had been inflicted on the victims of this treachery, and that the remaining captives were not given up, immediate steps were taken for the capture of Pekin, and finally one of the gates was surrendered to the allies. The city thus lay at the mercy of its captors without any further hostilities. The palace of Yuen-ming-yuen was burned and destroyed by the English general on the 16th of October, as a punishment to the government for the perfidious cruelty towards the prisoners, and more especially as it was in that place that the barbarous treatment towards them commenced. This was one of the last acts of the expedition. It was wholly warranted by the occasion, and signally marks the indignation of the army against those who entrapped persons into their hands, and then cruelly tortured them to death. A money compensation was also demanded, on account both of the survivors and the relatives of those who had died.

The Chinese commissioners were doubtless in great fear when they found that the army was marching on Pekin, and that so many of the prisoners had died. Hence, in part, the hesitation and delay exhibited in the letters to Lord Elgin, and the so often expressed wish to Mr. Parkes that peace should be signed, and the army depart before his surrender. Sanguinary and unsparing in their own revengeful acts, they could not but have a premonition that retribution would be dealt out to them as soon as the truth was known.

During the negotiation at Tung-chau, on the 17th of September, and also while Mr. Parkes was a prisoner, the question of Lord Elgin's audience with the emperor, for the purpose of presenting the Queen's letter was discussed, and the ostensible reason given by Sang-ko-lin-sin for the renewal of hostilities, was, that this point, which had been left unsettled, would still be insisted upon by Lord Elgin. The persistence with which this question was pressed, showed that the Chinese attach great importance to this audience; and until it is granted they will continue to hold the traditionary idea that prevails with them, that we are only rebellious vassals, not an independent people. It is true Lord Macartney was admitted to an audience, but through the trickery of the Chinese, he appeared only in the character of a tribute bearer; whereas, if Lord Elgin were allowed that honour, it would be a concession that the emperor of China is not ruler over the whole world, but that there are other imperial sovereigns as well as himself. Hence the importance that attaches to this point; and there can be little doubt that no peace between the Chinese and ourselves will be binding till the said audience is granted. The emperor, when he chooses so to do, can disavow the treaty and say that he never gave so great powers to his officers as to sign such a document, and nothing but the audience can fix on him the direct responsibility of the treaty conditions.

On the 24th October the convention was signed by Lord Elgin and the Prince of Kung, the Chinese plenipotentiary, and the ratifications of the treaty of Tien-tsin, of 1858, were exchanged. All the conditions of the treaty and convention were to take imme-

diate effect, and arrangements were made for the return march of the army to Tien-tsin, where a part of the force is wintering; that and other places to be garrisoned by British troops till the indemnity of eight millions of taels be paid.

In this convention nothing is said of the audience with the emperor, and as Lord Elgin had left Pekin, it is presumed that no such important ceremony had taken place. There is no doubt that this is a very grave error, indeed, a fatal mistake. It was the chief point of the whole expedition, and the non-fulfilment of this intention on Lord Elgin's part will, we fear, be found fraught with much future mischief. When the army was in position before the capital, and had power to enforce all just demands, was the time when this so oft contested question should have been set at rest for all time, by the fact that a fully accredited foreign ambassador had been received to an audience with his imperial majesty, the Emperor of China, without being called upon to degrade himself by the slavish prostrations that are required from all others who approach the dragon throne, in token of their submission and fealty to the Chinese ruler. The question of the Kau-tau, or nine prostrations, has often been discussed, and it is said by some to be merely an act of politeness towards the sovereign; but it is not this; it is a direct recognition of inferiority and submission. Of course the Chinese government can require it from its own subjects, but for a European officer to perform this ceremony is degrading to himself and to the sovereign he represents, and can, on no account, be yielded to.

Had Lord Elgin even perilled the treaty, or the

making of peace, it had been better, under any circumstances, than thus to depart without the audience, so often discussed, and yet never obtained. How much more when accident, say rather providence, had so situated him, that the just desire of retribution might have exacted this bloodless sacrifice of an antiquated prestige, as part atonement for as bloody and treacherous an action as ever soiled the annals of history. In the absence of further information, it is impossible to say why this subject was ignored. Probably Lord Elgin was not required by his orders from the Home Government to insist on this point. If so, it is very lamentable that the question should be so little understood by our statesmen.

Another reason may have been that the cold weather was approaching, and that time did not allow of further negotiation; and thus delays of the Chinese again effected the object they ever have in view when treating with us, endeavouring to baffle us by negotiation, till the time of action has passed away.

From whatever causes, it is plain that no audience has been granted, and the chief difficulty in all our relations with the Chinese Government remains as insurmountable as ever. We have obtained the boon of free access to the interior of China, but the boon would have been far greater, and the benefits of it more easily realised, had the direct responsibility of the emperor been obtained for the treaty, and the equality of Her Majesty Queen Victoria with His Imperial Majesty Hien-fung been acknowledged, as would have been the case had our ambassador paid his respects to the latter without the degrading prostrations; not in the capa-

city of a tribute-bearer, but as the representative of a great and independent sovereign.

Among the subjects of great interest, as affecting the destinies of the Chinese empire, that of the present rebellion cannot be passed over. It arose in the province of Kwang-si, in consequence of persecution against a young man named Hung-sew-tseuen for a profession of Christianity. He had been brought to a knowledge of the Gospel, in the first place, from receiving a Christian tract from Leang-Afah, Dr. Morrison's Chinese evangelist; afterwards he appears to have had intercourse with one or more missionaries, and to have obtained a copy of the Chinese version of the Old and New Testaments. He and others like minded with him were, in consequence of this profession, driven away from their native place. After much persecution they attacked and defeated the soldiers sent against them, took a small city, and obtained a quantity of arms and ammunition. Many persons joined them; an army was organised, having for its object the restoration of a native Chinese dynasty; this army, in the course of a few years, swept through the country, and after many battles and much success, the chief established himself in the captured city of Nanking, the capital of the native Chinese emperors.

The chief professed to assume the right of destroying the Tartar ruler of China, because he had, in vision, received from God a seal as his commission to do this, on account of the idolatry upheld and practised by the present rulers; and also a sword, as a sign that he should carry this out by war.

The capture of Nanking took place in 1853, and,

shortly afterwards, Sir G. Bonham went in H. M. S. "Hermes" up the Yang-tsze-kiang to see what was the character of these men in arms against the government. Much information was obtained, showing that the rebels were in great force, were determined to extirpate the Tartars, and establish themselves in their place, professing to rule their future kingdom according to the dictates of God's word. There appeared to be a certain amount of nominal Christianity among these rebels, and though the chief advocated and practised polygamy, he declared in his writings that he worshipped God, and wished the Bible to be the rule of conduct among his followers. Idolatry was put down, no idols were permitted in the army, portions of the Bible were printed and distributed, the Sabbath was observed, and public worship maintained. Notwithstanding all this, fearful cruelty was shown towards all prisoners of war, much of superstition and heresy was mixed with their confession of faith, and robbery and plunder were constant accompaniments of their progress. Occasional visits were afterwards paid to Nanking, but little further information was obtained as to the state of Christianity among the rebels. Meanwhile the imperial army attacked them again and again, but was as often defeated, and though the siege of Nanking by the imperialists was continued year after year, the rebel army could not be dislodged. An expedition had been sent to the north of 40,000 men to seize Pekin, but this was not effected; the Tartar army attacked them on the way, and the slaughter that was dealt out to them, and the famine they suffered from, reduced their force to 5000 men,

who had the greatest difficulty in effecting a retreat to Nanking. This loss, and the troubles consequent on a dissension among the rebel leaders, which did not end without frightful bloodshed, prevented the rebellion advancing for some years. During last year, 1860, however, they burst through the imperial army, which they effectually dispersed, and took the rich and important city of Su-chau, eighty miles from Shanghai, also threatening to come and seize Shanghai from the imperialists. There can be no doubt that if the rebels had taken Shanghai at this juncture, they would have been very unpleasant neighbours to the Europeans in the foreign settlement, owing to the uncertainty of their movements, and the contests that would have been inevitable between them and the imperialists. Measures of defence were taken by the English and French ministers resident at Shanghai, and this defence was not only for the protection of the foreign settlement, but included the Chinese city also.

There can be little doubt that had Mr. Bruce at this time taken more decided measures than he did to inform the rebels of his intentions, and of his reasons for holding the city, and had the position of foreigners been fully explained, the attack on Shanghai would, in all probability, not have taken place. Thus ill feeling on the part of the rebels towards foreigners would not have been aroused, and those who professed to be friendly not made hostile to us. For, however lightly some may esteem the rebels, there is no question as to their force, and to their possessing great power for good or evil.

The rebels, being repulsed from Shanghai, did not

renew the attack, but went off in other directions. For the present they occupy Su-chau. There is no imperial army in the field that can drive them away from the neighbourhood, and they take any of the cities in the plain just as they choose.

One chief reason of the want of success by the rebels in winning the confidence of the people is that they appear to have no power of organisation among them. They take cities and plunder them, but do not institute any government; when they see fit they leave, and go to another place, which they treat in the same manner. Thus the whole country is devastated, and no progress is made towards establishing their rule. Great as is the army of the insurgents, and victorious as it usually is when it meets the imperial army, this absence of organisation is the weak point of the movement, and throws doubt on its final success. The people are decidedly hostile to the rebellion, and after years of bloodshed and robbery, the whole of the district that has been occupied by them is left waste and desolate.

What is to be the end of the rebellion, and what its influence on the future of China, remains to be seen, and no one would be presumptuous enough to prophesy; but it is clear that the Tai-ping dynasty will never be popular in the land until its adherents begin to organise a system of rule in the cities they occupy.

As to our policy respecting these insurgents, it is manifest that absolute neutrality ought to be observed. We ought not to oppose them, or to help them, and the time to recognise them as a government in China has not come; they are rebels in arms against the imperial government, and must be left to fight out their

quarrel as they can; it will be time enough to recognise them when they become the *ipso facto* rulers of the whole or of a moiety of the empire. So large is their army, and so wide-spread the movement, that any European forces we might bring against them would, we think, have little effect towards subduing them and thus trampling out the rebellion; as no such force could pursue an advantage into the interior of the country.

Besides this Tai-ping rebellion and several minor local disturbances, there is said to be an organised insurrection in the province of Shan-si, which is directed by many influential Chinese.

This province is not far from Pekin, and if the movement assume any great importance, which from the latest accounts it would appear to be gradually doing, the Tartar government will be much affected. These rebellions not only prevent the raising of revenue from the disturbed districts, but also cause an enormous outlay in the equipment of the troops sent to subdue them. What with foreign war and internal rebellion, the finances of the empire must be in a deplorable state; and should these troubles last for any great length of time, they will seriously injure the hold that the imperial government has hitherto maintained over the minds of the people.

CHAP. XIV.

REMARKS ON THE OPIUM QUESTION.

In the accounts of the hospitals there are many observations on the practice of opium smoking by the Chinese, but it is desirable to enter more fully on this important subject, and even to recapitulate some previous statements in Reports of the Hospitals.

It is the custom of Chinese physicians to prescribe the use of the opium-pipe in cases of obstinate ague and rheumatism, and no doubt this is useful in alleviating distress and pain for a time; it also breaks up the periodicity of ague, but the patient, though relieved of these diseases, is left dependent on opium probably for the rest of his life, so that the cure is worse than the disease, and in many cases the first incitement to the use of the drug arose from its being recommended as a palliative for the relief of pain or distress of some kind or other, and the habit once acquired it has been almost impossible to discontinue. The first thing to be done for the cure of opium smoking is to insist on the discontinuance of the opium-pipe altogether, supplying its place by opium and camphor in pills, giving at the same time astringents, as pomegranate-skin powder, to check the diarrhœa that always follows the abandonment of the pipe. Tonics are also given, such as infusion of quassia, with

bitter tincture of any kind, and any of the essential aromatic oils or camphor mixture. Other stimulants are also given as required, generous diet is recommended to the patient, and after continuing the opium pills for a few days, the pains in the bowels and limbs pass off, and the opium in the pills is reduced in quantity till it is left out altogether, when the tonic is given alone till the cure is complete.

Several thousand cases of opium smokers were attended to at the hospital at Shanghai; great numbers of these were relieved, and enabled to give up the use of the drug. The people themselves have an idea that they cannot be cured of opium smoking, and that they will die if they break off the use of the pipe. When they saw many persons who did give it up during their attendance at the hospital, they acquired confidence in the means used, and this helped largely in the cure, and added greatly to the reputation of the establishment.

In the year 1849 great numbers of patients sought relief from the habitual use of opium, when they found that many of their friends had been cured. Many of these applicants had not resolution of purpose sufficient to carry them through the process of treatment, and relapsed into the use of the drug, but, on the other hand, a large proportion of them persevered, and wholly broke off the pernicious habit which had enslaved them. Among these was a young man, the son of an officer at Hang-chau, and himself a candidate for office. He applied at the hospital, and said he wished to stay there till he got well. He had, according to his own account, been in the habit of using eight drams of the drug daily; his health was consequently very much injured by this excessive use of the pipe; he was wholly

unable to fulfil the duties of his station, and thus all prospect of his advancement was closed to him while he remained in this state. He steadily prosecuted the plan prescribed for him, and in six weeks left Shanghai much improved in health, and able to live without using the drug at all. His chief fear in leaving was, lest he should be attacked with ague on his return to Hang-chau, and then he did not know what he should do without the opium pipe. Quinine medicine was given him, and he was encouraged to resist his tendency to return to his former habit, which he promised to do. On his departure he begged to be allowed to place a tablet in the hall of the hospital, expressive of his gratitude for the benefit he had received. He afterwards wrote saying that he was well, and able to resume his studies, and also sent some of his friends to be relieved as he had been.

In the year 1855, the late Rev. Dr. Medhurst issued a short paper on the opium trade, accompanied by tables showing the results of the trade.

The paper was drawn up partly by Dr. Medhurst and partly by the present writer. It is full of important matter, and though it has already appeared in the Blue Book or Parliamentary Papers, it has not been much circulated, and it is thought well to introduce large extracts from it here.

"In the 'China Mail' for January of last year (1854) the total deliveries in China are stated to be 40,000 chests from Bengal, and 27,000 from Bombay. In a subsequent number of the same journal, we find, as given in the preceding table, 53,000 chests exported from Bengal, leaving 13,000 chests from that port to be

accounted for as consumed somewhere out of China. Perhaps we should not be far wrong in coming to the conclusion that 12,000 or 13,000 chests have been for several years past taken up by the Ultra-Gangetic nations, exclusive of China; and from 5000 to 8000 annually for the twenty years preceding 1850.

"As to the probable number of smokers we have only approximate calculations. Innes, writing on the subject in December 1836, supposed that a tael, or an ounce a day, is the proper allowance for a confirmed opium smoker. A writer in the 'Repository,' for October 1837, gives only 3 candareens, or 17½ grains a day for a moderate smoker. Both estimates seem to be in error, the one being excessive and the other defective. On inquiry of the Chinese in Shanghai, in the present day, the invariable answer is a mace or a dram a day for moderate smokers, adding that there are few who confine themselves to this amount; the most of them consuming two, three, and five mace a day in order to keep up the stimulus once excited by a single mace. Let not any suppose that the common people and the labouring classes could not afford to use so much of so valuable a drug. It is horribly cheap. The last quotation in the Shanghai price current, was for Patna and Benares, $360; and for Malwa, $420. Taking the average at $400 the chest, as each chest contains 70 catties of smokable extract, the price for a mace or dram would only be 64 cash. It is actually sold in the retail opium shops at 90 cash per mace or drachm. This is only half the wages of a labouring man, which he might easily expend in the way above described, and leave enough for food and clothing

Thus it is not beyond the means of the daily labourer to procure and consume a mace a day. The mercantile and literary classes can afford and do consume much more, and some even gratify themselves with a tael. These do not generally go to the retail shops, but buy the opium by the ball, and prepare it themselves, in which case it does not cost them more than 70 cash per mace.

"An objection may be brought by some that such a quantity of the narcotic would kill them at once, and therefore they could not take it; to which it will be sufficient to reply, that it does not. A medical man, who has had much to do with opium-smokers and is well acquainted with the quantity each consumes, and the effect produced upon his system, says that if a man uses only a drachm a day, it does his general health little injury. Confirmed inveterate pale-skinned smokers use two, three, four, and even six or eight mace a day.

"Persons only acquainted with the effects of opium in Europe, would still stand aghast at the statement that a Chinaman will consume half an ounce a day without killing him. But it must be remembered that the Chinese only smoke it, they do not swallow it. One mace mixed up with ardent spirits and taken into the stomach would be sufficient to poison a man at once, and many do poison themselves in this way. But passing, as it does, by means of the pipe through the lungs, its poisonous qualities are greatly diminished.

"The smokable extract above spoken of does not amount to one half of the bulk of the opium. From a

careful experiment made it appears that 1 catty or 16 taels, yields of extract 7 taels, 8 mace, 8 candareens, being a reduction of 51 per cent. A chest of Patna, therefore, weighing 140 lbs. gives only 70 lbs. of extract. This is a very extravagant mode of using the opium, but it is the method the Chinese have adopted, and its awful cheapness enables them to throw away more than half the narcotic power of the drug, and to use the other in such a way that the results upon the system are only one tenth of what it would be if taken inwardly, as the people in Turkey, and unhappily some in Europe do.

"Assuming the proportion of a mace a day as the average amount of daily consumption of each person to be correct, we can easily arrive at the number of smokers throughout the empire. Proceeding upon the statement of the 'China Mail' that 67,000 chests were delivered in China last year, and that each chest contains 70 catties of smokable extract, allowing to each smoker one mace per day, we have little more than two million smokers for the whole empire. Some contend that a large quantity of opium is grown in China: Mr. Fortune saw the poppy growing for the purpose of obtaining the inspissated juice. Neither he, however, nor any other man can tell how much is actually grown. Supposing it even to be one half of the amount imported, it would then raise the amount of smokers to somewhere about three millions, about one per cent. of the population. For this addition, however, the Chinese themselves are responsible. Foreigners have nothing to do with it, except in as far as they gave them the appetite for the drug, and led them to supply

their own wants at a cheaper or more convenient rate than they could do by procuring it from abroad.

"Regarding the physical evils of opium, much has been said to the purpose in some instances, and beyond the mark in others. The writer is obliged to a medical friend for the few remarks which follow.

"'The preparation of the drug may be briefly noticed as consisting in several decoctions of the raw material, which are strained, and the clear liquor evaporated, until the resulting extract is of a proper spissitude, about that of thick treacle.

"'The person who is about to smoke reclines on a couch, resting his head on a pillow; with one hand he holds the pipe, taking the mouth-piece between his lips; with the other hand he takes up a small portion of the extract, and applies it to the little nozzle on the pipe's head with a pointed steel wire or long needle, at the same time holding the nozzle directly over the flame of a lamp, making a deep inspiration, so that the fumes of the drug pass into the lungs. This is said to be unpleasant to those who first use the pipe, but they soon get over it. The fumes after being retained for a short time are allowed to pass away by the mouth and nostrils. Another application of the extract is then made as before, which is continued for a longer or shorter time, according to the effect wished to be produced.

"'When a smoker first commences the use of opium, as has been noticed above, it is a pleasant and refreshing stimulant; an artificial vigour and tone are given to the system, followed by a corresponding relaxation and listlessness; after which an effort is made

to remove the latter by a return to the pipe. This stage in the smoker's progress may be prolonged for some years without the health being interfered with; but he soon becomes a victim to the habit thus formed, which cannot easily be shaken off; the strength, however, is not impaired, and attention can be paid to business as usual, indeed the stimulus of the drug enables him to enter with vivacity upon any pursuit in which he may be engaged. At this time a little decision would enable him to throw off the habit, but this is seldom called for, and the smoker continues to use his pipe, thus accustoming himself more and more to dependence on his much-loved indulgence. By and by retribution comes; he cannot live comfortably without the stimulant; all the pleasure has gone, but he must obtain relief from the pain of body and dissipation of mind which follow the absence of the drug at any cost, the quantity of the drug called for being from time to time greater, and its use more frequent.

"'Among the symptoms that present themselves are griping pains in the bowels, pain in the limbs, loss of appetite, so that the smoker can only eat dainty food; disturbed sleep, and general emaciation. The outward appearances are sallowness of the complexion, bloodless cheeks and lips, sunken eye, with a dark circle round the eyelids, and altogether a haggard countenance. There is a peculiar appearance of the face of a smoker, not noticed in any other condition; the skin assumes a pale waxy appearance, and as if all the fat were removed from beneath the skin. The hollows of the countenance, the eyelids, root of the ala nasi, fissure and corners of lips, depression at the

angle of the jaw, temples, &c., take on a peculiar dark appearance, not like that resulting from various chronic diseases, but as if some dark matter were deposited beneath the skin. There is also a fullness and protrusion of the lips, arising perhaps from the continued use of the large mouth-piece peculiar to the opium-pipe. In fine a confirmed opium-smoker presents a most melancholy appearance, haggard, dejected, with a lack-lustre eye, and a slovenly, weakly, and feeble gait.

"'Day by day, and year by year,' the practice of opium smoking prevails more and more among this people, and by and by it will doubtless have a powerful effect on the destinies of the country. It is said that the late emperor used the drug; it is certain that most of the government officers do, and their innumerable attendants are in the same category. Opium is used as a luxury by all classes, and to a great extent; indeed so great that it cannot fail to exhibit its effects speedily upon the mass of the inhabitants.

"'In rich families, even if the head of the house does not use the drug, the sons soon learn to use it, and almost all are exposed to the temptation of employing it, as many of their friends and acquaintances are in the habit of smoking, and it is considered a mark of politeness to offer the pipe to a friend or visitor. Many persons fly to the use of the pipe when they get into trouble, and when they are afflicted with chronic or painful diseases, sleeplessness, &c. Several persons who have been attended for malignant tumours were made victims of the drug, by the use of it to appease the pain and distress they had to endure. The beggars are to a great extent under its influence, but

they use the dregs and scrapings only of the half-consumed drug, which is removed from the pipe-head when it is cleaned.

"'But the most common cause of the Chinese resorting to the use of the opium-pipe is their not knowing how to employ their leisure hours. When the business of the day is over, there is no periodical literature to engage their attention, their families do not present sufficient attractions to keep them at home; and sauntering about of an evening, with nothing to employ the mind, they are easily tempted into the opium shops, where one acquaintance or another is sure to be found who invites to the use of the drug.

"'As the use of the pipe grows upon a person, a great change is effected in its relation to the smoker; he originally took it to produce pleasure; he has now to take it to give freedom from pain, and soothe the series of evils consequent on the habit he has acquired. Till he has had his pipe in the morning, he is listless and uncomfortable, cares not for eating, nor indeed for his ordinary business or occupation; and feels unlike himself till he has had his smoke.

"'There is perhaps no form of intemperance more seducing than the use of opium, nor is there any more difficult to be delivered from. To acquire a full acquaintance with the effects of the agent, the consequences of which are now being discussed, it is necessary to view it under two forms: 1st, As to its incipient effects, in the stage of exhilaration, while the individual is in good health, and the powers of life are in full vigour; at this time the drug is a means of enjoyment. 2dly, As to the effects produced by the drug when it is

employed as a means of relief from the distress and pain resulting from the long-continued use of such a stimulant. This may be called the stage of depression; in this condition the individual soon becomes a martyr to his former vices, and bitterly repents of his having submitted to the temptation.

"'When the pipe is first taken, during the incipient stage, a few grains are sufficient to produce the full effect. This small quantity requires to be gradually increased to produce a given result; the times of using it must become more frequent, until the victim is soon compelled to use one drachm or sixty grains in the course of twenty-four hours. This quantity per day will supply the smoker for some years, but it has at last to be augmented till two, three, four, and even five drachms are daily consumed. This may be denominated the second stage.'

"Some are said to use ten drachms daily, but these are only the superior classes, who have no need to attend to any business or occupation, and can spend almost their whole time in intoxicating themselves with the use of the drug, or in recovering from its effects. The life of such persons is not prolonged, and the many complaints arising from the excessive indulgence soon put an end to their useless existence.

"Besides the cases of death arising from the excessive use of opium among the higher classes, who can afford to gorge themselves with their stimulant till they die, there are many more unhappy dissolutions arising from the inability to procure the accustomed, and to them necessary quantity. In the case of those who are in middling circumstances and get inured to the habit,

the enervating effects are such that they become after a time unable to attend to their ordinary avocations. They then lose their situations, or their business fails, and they are reduced to necessity. Gradually they part with their little property, furniture, clothes, &c., until they come to the level of the labouring poor, without those energetic habits which might otherwise form the ground of support. Among the lower classes, those who indulge in the use of opium are reduced to abject poverty sooner than the preceding. Having no property, furniture, or clothes to dispose of, their wives and children are sold to supply their ever-increasing appetite for the drug, and when these are gone, with greatly diminished strength for labour, they can no longer earn sufficient for their own wants, and are obliged to beg for their daily bread. As to the supply of opium, they must depend, as above stated, on the scrapings of other men's pipes; and as soon as they are unable by begging to obtain the necessaries of life, together with the half-burnt opium on which their very life depends, they droop and die by the roadside, and are buried at the expense of the charitable.

"The writer once knew two respectable young men, the sons of an officer of high rank, who died in this part of the country. They were both well-informed men, had received a finished education, were evidently accustomed to good society, and excited considerable interest in the minds of those with whom they came in contact. But they were opium-smokers; so inveterate was the habit, and so large the quantity necessary to keep up the stimulant, that their available funds were exhausted during their stay in this city.

Friends assisted them to some extent, and relieved their necessities again and again; but it was impossible to give them bread and opium too, and they subsequently died one after the other, in the most abject and destitute condition.

"Whilst these notes were preparing, the writer had occasion to go into the city, and just inside the north gate, in front of a temple, he saw one of such destitute persons, unable to procure either food or the drug, lying at the last gasp; there were two or three others with drooping heads sitting near, who looked as if they would soon be prostrated too. The next day the writer passed and found the first of the group dead and stiff, with a coarse mat wound round his body for a shroud. The rest were now lying down unable to rise. The third day another was dead, and the remainder almost near it. Help was vain, and pity for their wretched condition the only feeling that could be indulged.

"It is impossible to say what is the number of such victims, either among the higher or lower classes. An American missionary who lately visited England is reported to have stated that 'the smokers of the contraband article have increased from eight to fifteen millions, yielding an annual death-harvest of more than a million.'

"Such statements do great harm, they produce a fictitious and groundless excitement in the mind of the religious and philanthropic public at home, while they steel, against all reasonable and moderate representations, the minds of the political and mercantile body abroad. The estimate given has not even the semblance of truth, it is an outrageous exaggeration. The writer

has ventured an opinion on the number of smokers, but he would not even hazard a conjecture as to the 'annual death-harvest.' Every man must judge for himself in this matter.

"As to the moral evils arising from indulgence in opium, they are very patent. It blunts the moral sense, causes good men to waver in virtue, and makes bad men worse. Even Coleridge, with all his fine sensibilities and acquaintance with religious truth, was tempted to prevaricate and deceive in order to conceal his indulgence in the habit, and elude the vigilance of those who were engaged in watching him. How much more then may we expect a lying nation like the Chinese to lie so much the more in their attempts to conceal their vices from the eyes of observers. So invariably is it the practice of Chinese opium-smokers to deny their having any connection with the drug, that it is never advisable to ask them any questions about it, lest one should induce them to tell unnecessary untruths. No confidence can be placed in the religious profession of an opium-smoker, unless he abandon the vice, and even then the missionary should have very good evidence of his having done so before admitting him into connection with the church. Not only is the moral sense weakened in opium-smokers, but the habits they have acquired naturally and necessarily lead them into associations where they are directly tempted to the most profligate vices. A man accustomed to the use of the drug, therefore, soon becomes worse in other respects, and having commenced the downward career, every step in the rake's progress is more and more deteriorating. Opium smoking is thus the parent of

numerous evils, which are not originally chargeable upon it. When unable to procure the drug by honest means, such is the craving for it among its slaves, that fraud, peculation, and theft are resorted to in order to obtain it; insomuch that the Chinese themselves are in the habit of withdrawing their confidence from those addicted to the vile habit, unless they have other methods of tying them down to honesty.

"But it is unnecessary to pursue the theme further. All the evils usually springing from drunkenness by means of alcohol are to be met with among opium-smokers, except the uproariousness common to those in a state of liquor.

"A few words relative to the remedy which may be applied in order to check or repress the evil complained of, and we have done.

"In the first place, all exaggerated and one-sided statements should be avoided. The American missionary, whose late speech we have already alluded to, is reported to have said, 'This traffic is staining the British name in China with the deepest disgrace, as some of the subjects of Great Britain continue to carry on *an armed contraband trade in a destructive poison*, enriching themselves by merchandising that which impoverishes and murders the poor infatuated and besotted Chinese.' Now that missionary knew, or ought to have known, that American citizens are fully as much implicated in this affair, in China, as the subjects of Great Britain. There are individual exceptions among the merchants of both nations, but on the whole, both English and American houses in China trade in the drug each to the full extent of their means.

The speaker ought also to have known, that the arming of the vessels engaged in the opium traffic is simply for their own protection, and all little enough to defend themselves against the rapacious west-country pirates, who have of late years infested this coast. As it is told in England, it leads to the conclusion, that the opium vessels are armed for the purpose of resisting the revenue-officers of China, than which no idea could be more erroneous.

"But the missionary may ask, Are we to do nothing to stop this growing evil? Yes, there are a variety of things which missionaries may do. They may pray to God to avert this, as well as every other calamity which afflicts the human race. Nobody will find fault with a missionary for praying, and 'the effectual fervent prayer of a righteous man availeth much.' They may likewise exhort the Chinese not to smoke it, and they will find sympathising hearts among the crowds who listen to them, whenever they inveigh against opium. They may further insist on the utter abandonment of the practice in the case of all those Chinese who wish to be admitted to religious fellowship; and no one will complain of a missionary's keeping his communion as pure as possible. We live in hopes of seeing the Gospel universally prevalent in China, and if every missionary were to make it a *sine qua non*, in admitting members, to reject all those who cling to the drug, then, in proportion as Christianity spreads, would the evils of opium diminish, until the time came for China to be thoroughly evangelised, and then they would cease altogether. In addition to all this, missionaries could collect and diffuse information on the

subject. No persons are in a better position to obtain information relative to the effects of opium, in its social and religious aspects. Let this be carefully collected, and temperately set forth, and good must be the result.

"Religious and benevolent persons at home may do much towards diffusing this information, and keeping the public mind alive to the subject. Care should be taken, however, lest the parties be misinformed, and deal out their blows in a wrong direction. Abuse also must be rigidly avoided, and the imputation of wrong motives to merchants or the government be repressed. Thus with discretion and perseverance something might be done, but patience is above all things requisite, lest discouragement prevail when the efforts employed do not result in attaining all the success desired. The opium traffic has now grown from a little rill to a mighty river, and the attempt to check it is like rolling back the flowing tide. But the effect of increased light on the human intelligence, and influential motives brought to bear upon the human conscience, may in time be successful in removing prejudice, and overcoming self-interest, so as to lead men to 'do to others as they would be done by.'

"The writer cannot close without a few words of exhortation to those who deal in the drug in China. The principals are professing Christians, and justly pride themselves on being humane men. But Christianity and humanity both inculcate principles which, if carried out, would lead them to refrain from the traffic. Both of these would teach them that they are not to benefit themselves to the injury of others. Granting that a

large quantity of the opium they sell is used only as a 'harmless luxury,' and that in those cases where harm ensues, it is the abuse and not the use of the article which causes it; granting all this, they must admit, that the use leads to the abuse, by a natural and necessary process, and that if they did not import the drug, neither the use nor abuse of it could possibly take place. We do not say that *all* the opium imported does harm, but much of it assuredly does so; and if every chest but killed its man, or shortened the life and happiness of a single individual, it cannot be denied that it does harm. And can any sit down contented with the thought that the gains they are acquiring are obtained at the expense of the diminished comfort or shortened existence of others; while the wives and children of the deluded victims are bitterly bewailing the hour when the head of the family ever came in contact with opium? Surely if all the results of the traffic were known, humanity would lead them to recoil from any participation in it. Mind we do not stigmatise them with hard names, as some have done, but we do think they are not sufficiently considerate of the well-being of their fellow-men. They are as it were mixed up with a thousand others, who are driving along the battering-ram, which is beating down the best interests of China, and because they do not just see where the ram's head strikes, or the effect it produces, thoughtlessly conclude that no harm is done. Bystanders, however, see it, and they might see it, if they would but open their eyes; could they but see it, we are sure they would not inflict it—they would not 'needlessly set foot upon a worm'—and how can

they blindly persevere in doing that which will interfere with the best interests of their fellow-men."

The East India Company secured to itself the monopoly of the opium trade, fostering the production of the drug by large loans or bonuses to the cultivators, who were required to bring all their opium to the warehouses or godowns of the Company. The drug, after being examined, and when found equal to standard, was packed in a ball of prescribed size and weight, and sold by auction, at frequent public sales, to agents or hawkers. It was notorious that nearly all the opium thus sold went to China, but was never sent by the Company on their own account after the regular trade in the article was carried on. These remarks apply only to the Bengal opium and the Bengal side of India. In the Bombay presidency the practice is different. The Malwa opium is not grown in what was the Company's territory, but in the independent state of Malwa, whence the Malwarries can ship it only through Bombay under a heavy export duty. It had previously been shipped *viâ* Damaum, a Portuguese port; but as, since the annexation of Scinde, the opium from Malwa could not reach that port except by carriage through the Company's territory, it all goes to Bombay, subject to any amount of duty which its value will afford.

On the Company lies the responsibility of fostering the trade in every way possible, the revenue, from this source alone, in Bengal and Bombay amounting probably to some five millions sterling a year. Along with the East India Company's jurisdiction, this opium business was transferred to the British Crown, and at

present the British government holds the position of *a producer and dealer in opium;* a position not only anomalous, but highly derogatory to the dignity of and which can hardly be maintained with honour to the Crown. In this case the English government has certainly taken upon itself a branch of trade, and a trade, moreover, involving many serious evils. Now that it possesses supreme authority in India, it is surely time to remove from itself this reproach, and cease to be a dealer in opium. A mere regard to revenue should not be allowed to influence its determination. It is neither expedient nor consistent with the dignity and honour of the sovereign power to be directly concerned in commercial transactions, as the producer of a marketable article, and selling its goods by public auction, in the way and for the purposes of trade. With infinitely less objection, in a moral point of view, might the government open cotton-factories for the supply of longcloths to the foreign markets, than be a party to the carrying on of the trade in opium. However the question may be viewed as to the power of the government peremptorily to forbid the cultivation of the drug in India, its own encouragement of the growth of the poppy, and its monopoly and sale of the opium, might at once be terminated. Sir John Lawrence, in his admirable letter, has given advice which, if adopted, would at least relieve the government from the odium of being an opium merchant. Let it withhold the advances to the cultivators, break up its opium godowns, have no part in the monopoly; and, instead of the profits arising from trading in the drug, charge it with a heavy export duty as it passes through

Calcutta; doing in Bengal what is done in Bombay in this particular. And, further, let loans be granted to all those who should be willing to exchange for the cultivation of the poppy the cultivation of cotton, indigo, or sugar; for these advances ample security might be obtained, without the government participating in the business for the carrying on of which [illegible] are granted.

The government would thus be fr[illegible] anomolous position which it now o[illegible] world, and the entire responsi[illegible] chants and others wh[illegible]

This [illegible]

of opium was acquired by the Chinese. It is probable they were acquainted with the drug, cultivated and used it before the East India Company introduced the Indian drug, while the large importation of the latter has greatly encouraged the native habit.

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